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Foreword

Nowadays, we are witnessing an intense debate about the identity crisis of university as an institution. Universities are considered to be the European cultural product and the beginning of their formation dates back as far as to the 11th –13th century. On the other hand, it is necessary to stress, that even before that time period, there were institutions similar to the universities located in various parts of the world. A number of university models were developed at the end of the Enlightenment. Though, the most spread of them was the German (the Humboldtian) one. In the recent decades, this model has gone through crisis, which was caused by the complex of factors. These have included the postmodern criticism of enlightened approach towards the truth, commodification of education and science, bureaucratisation, technological changes in the field of information and communication technologies, and also the latest economic crisis. Cardinal question that matter today is the formation of the new university structure, which will be able to respond to the current challenges and to preserve positive features of the academic cultural heritage. This will require confrontation of the academic and entrepreneurial culture, but also efforts in the field of harmonisation of objective and subjective dimensions of its own status. One of the possible solutions is the formation of the socially relevant university. In our view, the concept of the social relevance of the university possesses this potential. Under the notion of social relevance of the university we understand the university success rate of confrontations with the various challenges and requirements, established by the external environment as well as by internal needs of university community. Though, such a generally defined concept requires precization of its dimensions. The main aim of this process is to identify the target segments which are going to be the subject matter of relevance. We identified four dimensions of university social relevance – heuristic (basic research), application (applied research and transfer of innovations into the practice), educational (sophisticated mix of academic and professional degree programs and lifelong learning courses), and obligatory dimension (the commitment to active participation and involvement of universities in promoting the values in order to improve current conditions on various scales in the world, ranging from global-local continuum). Authentic university needs to achieve social relevance in all four dimensions. In case some of the dimensions is missing, we talk about different type of higher education institution (e.g. specialized college). Above mentioned dimensions are mutually



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conditioned and their synergic interactions are an immanent feature, i.e. they are a pillar of the university identity as an institution. As soon as the objective dimension of the status represented by formal rights, which the university has (i.e. to provide the study programmes and award degrees), is not sufficient, universities have to develop also a subjective side of their status through the active branding policy. Other important components are a networking with other universities and publishing of scientific journals in order to inform the public about the research results. I consider Journal of Economic Development, Environment and People as an excellent tool for branding and university promotion within ACEU alliance, alliance as such, but also within interdisciplinary and transdisciplinary approaches which have heuristic potential.

René Matlovič



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Climate Change and the Risk Management in Serbian Inland Waterway Transport

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Abstract

Climate changes require special attention and global monitoring. Impacts on nature and industry are increasingly evident. Water transport could be the backbone of the future European combined transport system. Unfortunately, risks in water transport are perhaps an under researched area and consequently, this article outlines a rationale, why it is necessary to develop competence about risk in water transport. The development of the cargo transport in river traffic depends directly on technical-exploitative characteristics of the network of inland waterways. Research of navigational abilities of inland waterways always comes before building ships or making a transport schedule. Navigation characteristics of rivers have to be determined as precise as possible, especially from the aspect of determination the possible draught of vessels.

River transport due to their operational business and environmental conditions faced with several risks having different degrees of consequences. Current risk assessment methods for water transport just consider some dramatic events. We present a new method for the assessment of risk and vulnerability of water transport where river depth represents a crucial part. The analysis of water level changes on Serbian rivers during the last sixty years was done.

Keywords: climate change, risk management, water transport

JEL Codes: Q54, Q 25, L 95, G32



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1. Introduction

A logistic chain comprises all the entities and activities required to deliver final products to end customers – encompassing procurement, transportation, storage, conversation, packaging, etc. In recent years, due to increasing competition and tightening profit margins, companies have adopted a number of strategies to operate more efficiently and reduce transport and logistics costs. In general, lower cost and higher efficiencies are accomplished through a globalized logistic chain, higher capacity utilization, lower inventories, and just-in-time activities. However, there is always a trade-off between efficiency and some kind of vulnerabilities. Hence, there is a clear need for enterprises to manage logistic risks and reduce vulnerabilities so that they can respond and recover from disruptions promptly and efficiently (Arief, Rajagopalan, Iftekhhar, 2009). According to this, we can conclude that risk management has become imperative for today's complex transport and logistics chain.

Inland water transport (IWT), as a crucial transport mode, could be the backbone of the future European intermodal transport chains, due to the fact that it can ship heavy as well as a large amount of commodities in combination with price advantages. Besides, inland waterways have still free shipment capacities. In Europe around 14,000 km of approximately 29,000 km of inland waterways are used for freight carrier. Also, IWT represents the only means of land transport which does not suffer congestion problems like that of rail or road within Europe. In general, inland waterways are underused, but inland navigation is not considered as a truly competitive alternative to other means of land transport. Estimates suggest that inland navigation would carry up to 425 million tons per year, including the accession countries, in the European inland waterway network, if the necessary action towards an integration of IWT into managed intermodal logistics chains were undertaken (European Commission, 2001).

In order to develop and implement an advanced European concept to manage intermodal transport chains with IWT as a core transport mode, we need to develop effective risk management tool for proactive management of disruptive events in IWT. Unfortunately, risk in IWT are perhaps an under researched area and consequently, this article outlines a rationale for why it is necessary to develop competence about risk and risk management in IWT. Hence, in this research we examine inland waterways logistic chains with respect to risks and accordingly disruptive events which can occur at the nodes as well as at the links of the logistic chain. The aim is to develop framework for generating an extensive risk catalogue for all associated

logistic chain members. Briefly, risk management framework proposed in this article consists of the following



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steps in sequence: risk identification, consequence analysis, risk estimation, risk mitigation, risk assessment,

and risk monitoring. This article focuses on the risk identification and risk estimation steps. In addition to that, we estimate the risk of inappropriate river depth according to their probability of occurrence and their business impact.

2. Coping with risk in inland water transport

There are many different definitions of risk in the literature, and we will not attempt to list them all. Some of those definitions assumed connections between risk and uncertainty, and their definition of risk is “the possibility of suffering harm or loss”. From a more technical perspective, risk can be defined as the probability of an event multiplied by the (negative) consequences of the event. Kaplan (Kaplan, 1997) suggests that risk is defined by the answer to the three fundamental questions: (1) “What can go wrong?”, (2) “How likely is that to happen?”, and (3) “What are the consequences?”. Also, risk can be defined as the potential negative impact that may arise from an adverse situation. In our context, IWT as part of intermodal logistic chain, the adverse situation is disruption to logistics operations. Disruption is defined as any event or situation that causes deviation from normal or planned logistic operations. Disruptions bring about adverse effects such as blockage of material and information flows, loss of ability to deliver the right quantity of the right product to the right place and at the right time, loss of cost efficiency, inability to meet quality requirements and process shutdown (Arief, Rajagopalan, Iftekhhar, 2009). According to all above mentioned, we can conclude that risk represent exposure to circumstances with potentially damaging effects arising from an event that is not handled appropriately. So, risk is defined as product of probability of accidental event occurrence and its consequence, and risk management needs to address both sides of an accidental event, the sources leading up to it and the consequences arising from it (Sulaiman, Kader, Saharuddin, 2011).

$$Risk (R) = Probability (P) \times Consequence (C) \quad (1)$$

Risk management is the systematic approach to identifying, analyzing, and acting on risk. It incorporates all steps from the initial identification of risks to the final decision on risk-reducing actions and risk monitoring. The basic framework for risk management is illustrated in Figure 1 and follows a structure similar to (Arief, Rajagopalan, Iftekhhar, 2009). The major steps are:

1. Risk identification: The first step is to recognize uncertainties and possible sources of disruption event. A



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wide array of methods exists for identifying sources of risk, e.g. comparative methods, fundamental methods, and logical diagram methods. Another way to identify potential risk factors is through

historical analysis, which examines historical events to gain insight into potential future risk. Nevertheless, the identification or risk sources appear to be the least-mentioned risk technique, despite the fact that it is seen as the most important step.

2. Consequence analysis: Once the risks have been identified, their consequences have to be analyzed. The disruptions due to one particular risk or a combination can be simulated and consequences propagated through the business model to identify all likely effects.
3. Risk estimation: Risk is usually quantified in financial terms and/or ranked according to some pre-defined criteria. Two different dimensions need to be considered: its frequency/probability and its severity/consequences, taking into account the effects of mitigating actions and safeguards, if any.
4. Risk assessment: The risk management team decides whether the risk quantified in the previous step is acceptable based on experience, industry standards, benchmarks or business targets.
5. Risk mitigation: Mitigating actions and safeguards such as emergency procedures and redundancies have to be developed, based on both the business model and inputs from the risk management team or relevant personnel.
6. Risk monitoring: the business structure and operation do not remain stationary but change regularly, for example due to changes in suppliers, regulations, operating policies, products, etc.



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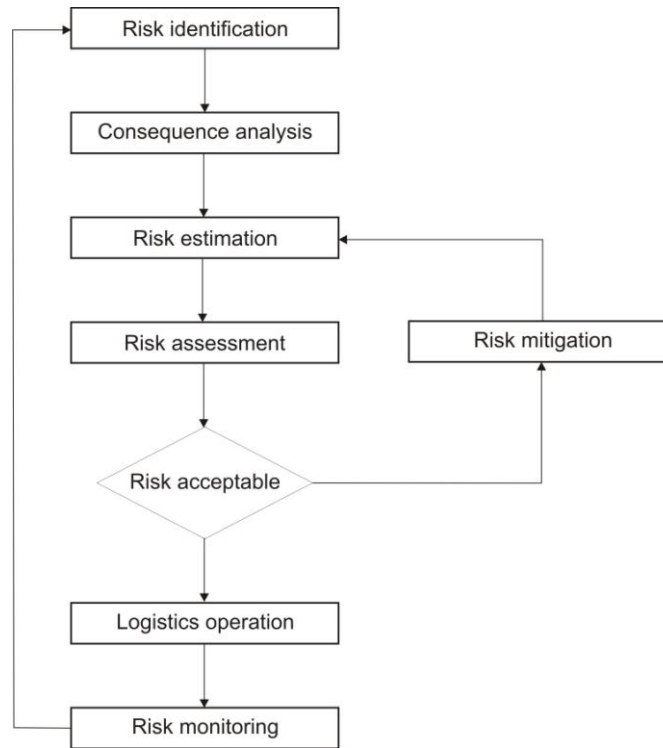


Fig.1: Basic framework for risk management

The key research question in this paper was how to engineer this basic framework for risk management in IWT in general, given the different scope of different IWT chains. That is achieved by applying the framework for categorizing logistic risk and risk management used in (Norman, Lindroth, 2004), but adapted to an IWT setting, as the Figure 2 shows. This three-dimensional approach captures the different types of risks, the managerial context and the unit of analysis along three perpendicular axes.



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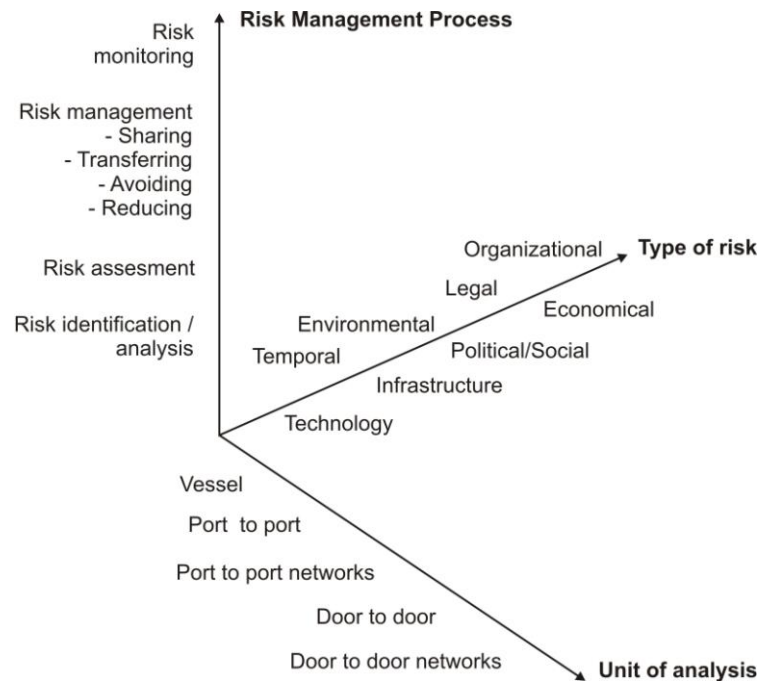


Fig. 2: The proposed framework for categorizing risk in IWT chains

In the next section we will use proposed framework for identification and estimation one kind of infrastructure risk – river depth as crucial navigation characteristics of river.

3. River Depths and occurrence of ice as risk factors in transport process

The river depth risk is a product of the probability of the physical event occurrence as well as losses that include damage, loss of life and economic losses. Shallow water or restricted river depth can expose vessel

owners and operators as well as the public to the possibility of vessel or cargo damage, injuries, environmental damage, etc. Complete risk modelling requires frequency estimation and consequence quantification. In the next section, based on proposed risk categorizing framework, through the appropriate case study, we will analyze frequency estimation of restricted river depth. Our case study covers only river

depth risk, as one kind of infrastructure risks, and its identification in one part of IWT chain (unit of analysis is



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port to port), as is shown in the Figure 3.

River depth is a variable in time and space and depends on multiple factors (climate area, basin characteristics, part of river flow, season). River depth is a variable factor with stochastic character, but it is possible to observe its seasonal disorders (Jonkeren, Rietveld, Ommeren, 2007). On all navigable rivers, there are sections with favourable and unfavourable navigational conditions. The risk analysis first determines the critical sections, i.e. river sections with the most adverse navigational characteristics. The next step is a detailed analysis of conditions and seasonal disorders. An activity flowchart of the analysis of unfavourable river depths occurrence is shown in the Figure 4.

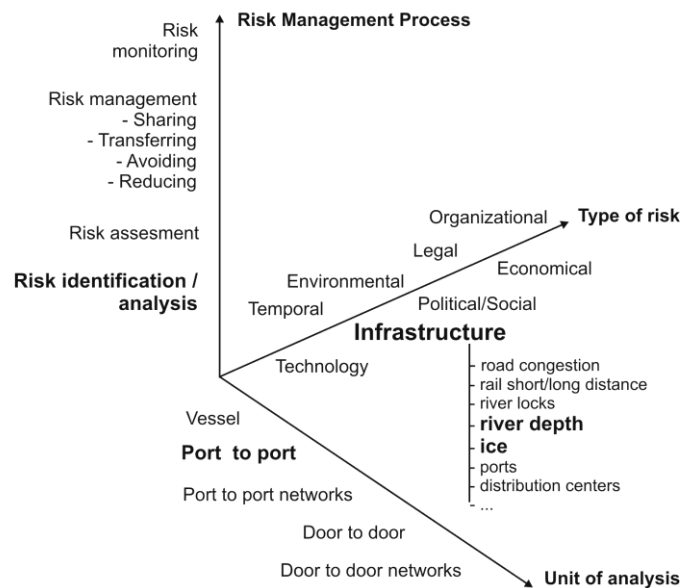


Fig. 3: Parts of the proposed framework for categorizing risk in IWT chains covered by the case study



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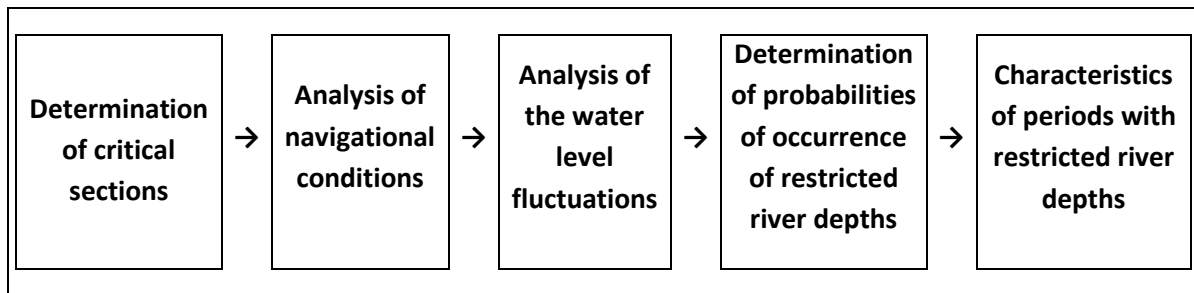


Fig. 4: Activity flowchart of the analysis of restricted river depths occurrence

Ice on river is a phenomenon that occurs solely during winter months and causes disruption in navigation. In order for ice to form on a river, the air temperature needs to be low and lasting a period of time, so flowing water freezes. An activity flowchart of the analysis of ice occurrence is shown in the Figure 5.

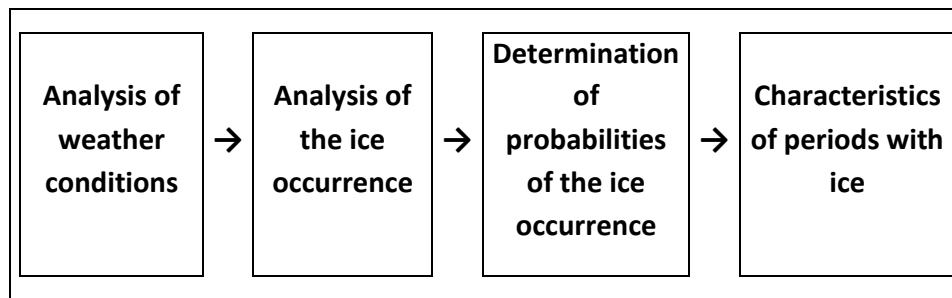


Figure 5: Activity flowchart of the analysis of ice occurrence

3.1 Case study: analysis of restricted river depths and ice occurrence on the Danbe

Analysis of the water level oscillation on a critical section is used to plan the navigation because low navigation levels limit the size of draught of all vessels. It is known that the size of the vessel's draught (T) is usually the limiting value in project tasks and it is conditioned by the depth of the waterway or depths in certain ports. This is the reason why navigation characteristics of the Danube have to be determined as precise as possible, especially from the view point of determining in reality possible draught of vessels. (Jonkeren, Jourquin, Rietveld 2009).

Analysis of occurrence of unfavourable depths and ice on river was conducted with the goal of planning navigation period, i.e. to estimate the risk of navigation disruption due to ice. The research has been done for the period between 1 January 1958 and 31 December 2008. Duration of navigation period, i.e.



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determination of the risk of navigation disruption was based on analyses over many years and monitoring of the phenomenon trends. In order to follow the changes of a phenomenon over a period of time, the observed period was divided into three seventeen-year sections (1958-1974, 1975-1991, 1992-2008). In that way, comparison of duration, i.e. probability of occurrence in the observed segments was conducted.

3.1.1 Results of analysis for water level station Novi Sad

In this paper will analyze the oscillation of water level at the water level station in Novi Sad (Serbia). To get even more precise condition of waterway on this section of the Danube, during research it has been started from the assumption that the possible draught of vessels is $T=250$ cm when water level on station Novi Sad shows $H=+80$ cm (ENR – low navigation and regulation level). That means that, at that water level, in the zone of the water meter station, navigation is possible for vessels of up to 2.5 m draught. It has been confirmed in practice that very often, even at water level of +100 cm, there are moving shoals which can cause interference and navigation disruption. For that reason, probabilities of water level occurrence that are lower than the given values were determined. (Škiljaica, Bačkalić, Škiljaica, 2009).

Basic navigation characteristics of importance for determining vessels' draughts in this period are:

- lowest navigation level determined in the observed period (1958-2008) is -29 cm;
- highest navigation level determined in the observed period (1958-2008) is +778 cm;
- average navigation level in the observed period (1958-2008) is $\bar{H} = 251$ cm with standard deviation from the average value $s = \pm 113$ cm, which gives an interval of possible values of navigation level $H_{min}=+138$ cm and $H_{max}=+364$ cm, or draughts of vessels, average $\bar{T} = 421$ cm, minimal $T_{min}=308$ cm and maximal $T_{max}=534$ cm.

Based on the analysis of the observed period (1958-2008) occurrence probability of the following water levels was determined:

- lower than +80 cm (ENR)
- lower than +100 cm (high occurrence of banks)
- higher than +700 cm (emerging flood defence)

Table 1 shows characteristic values of probability for the whole period and for parts.

Table 2 shows mutual relationships among parameters from table 2, i.e. monitoring of parameter changes over the period.



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Table 1. Characteristic values of probability for the whole period and for parts

Probability	period			
	1958-1974	1975-1991	1992-2008	1958-2008
	t_1	t_2	t_3	Σt_i
P(X<80)	0.1060	0.0754	0.0408	0.0733
P(X<100)	0.1508	0.1193	0.0846	0.1179
P(X>700)	0.0053	0.0006	0.0016	0.0025

Table 2 Monitoring of parameter changes over the period

Probability	P _i ratio (%)				
	$t_1/\Sigma t_i$	$t_2/\Sigma t_i$	$t_3/\Sigma t_i$	t_3/t_1	t_3/t_2
P(X<80)	+44.6	+2.9	-44.4	-61.6	-45.9
P(X<100)	+28.0	+1.2	-28.2	-43.9	-29.1
P(X>700)	+110.6	-74.5	-36.2	-69.7	+150.0

The period between 1958 and 2008 was analyzed (51 years) and the following parameters were monitored:

- average water level trends (figure 6)
- trends of maximum water level changes by months (figure 7)
- trends of average water level changes by months (figure 7)
- trends of minimum water level changes by months (figure 7)
- trends of changes of standard deviation from average water level by months (figure 7)



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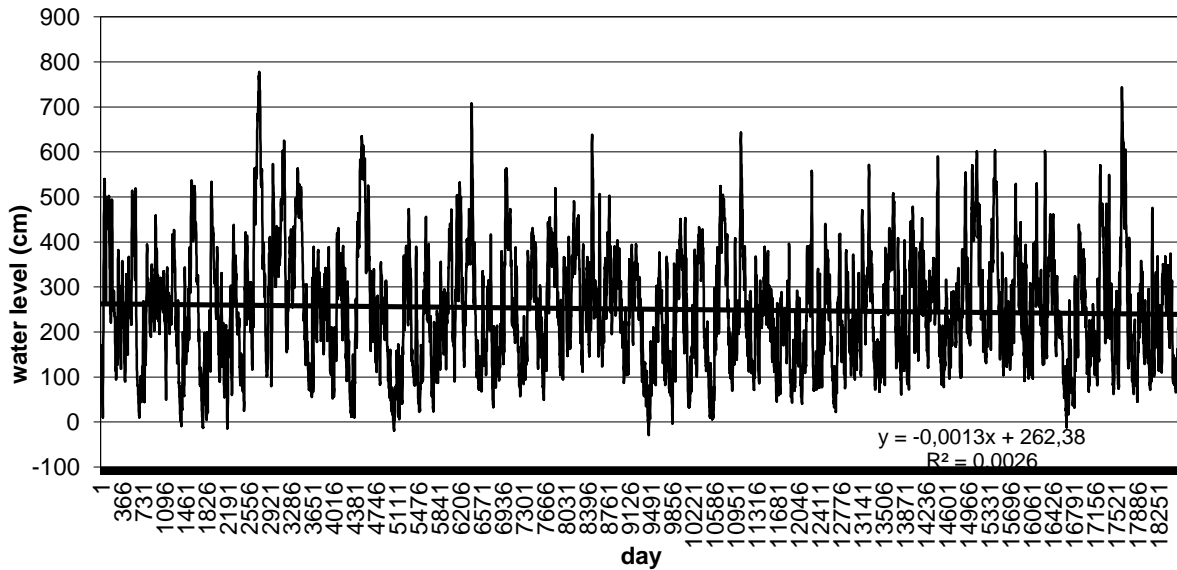
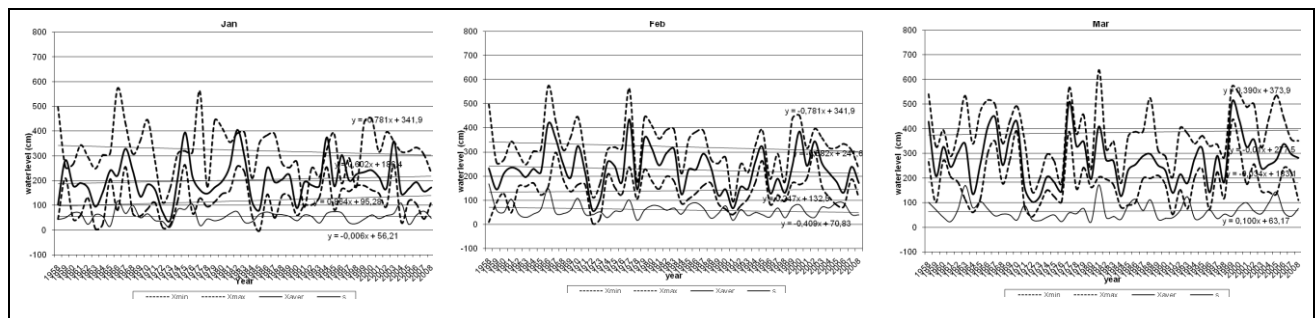


Fig. 6. Average water level trends

3.1.2 Results of analysis of ice occurrence

Analysis of occurrence of ice on the Danube was also conducted in the period of 1958-2008 and the following parameters were monitored:

- number of days with ice during winter (figure 8)
- probability of occurrence of days with ice (table 3)
- probability of occurrence of years with ice (table 4)





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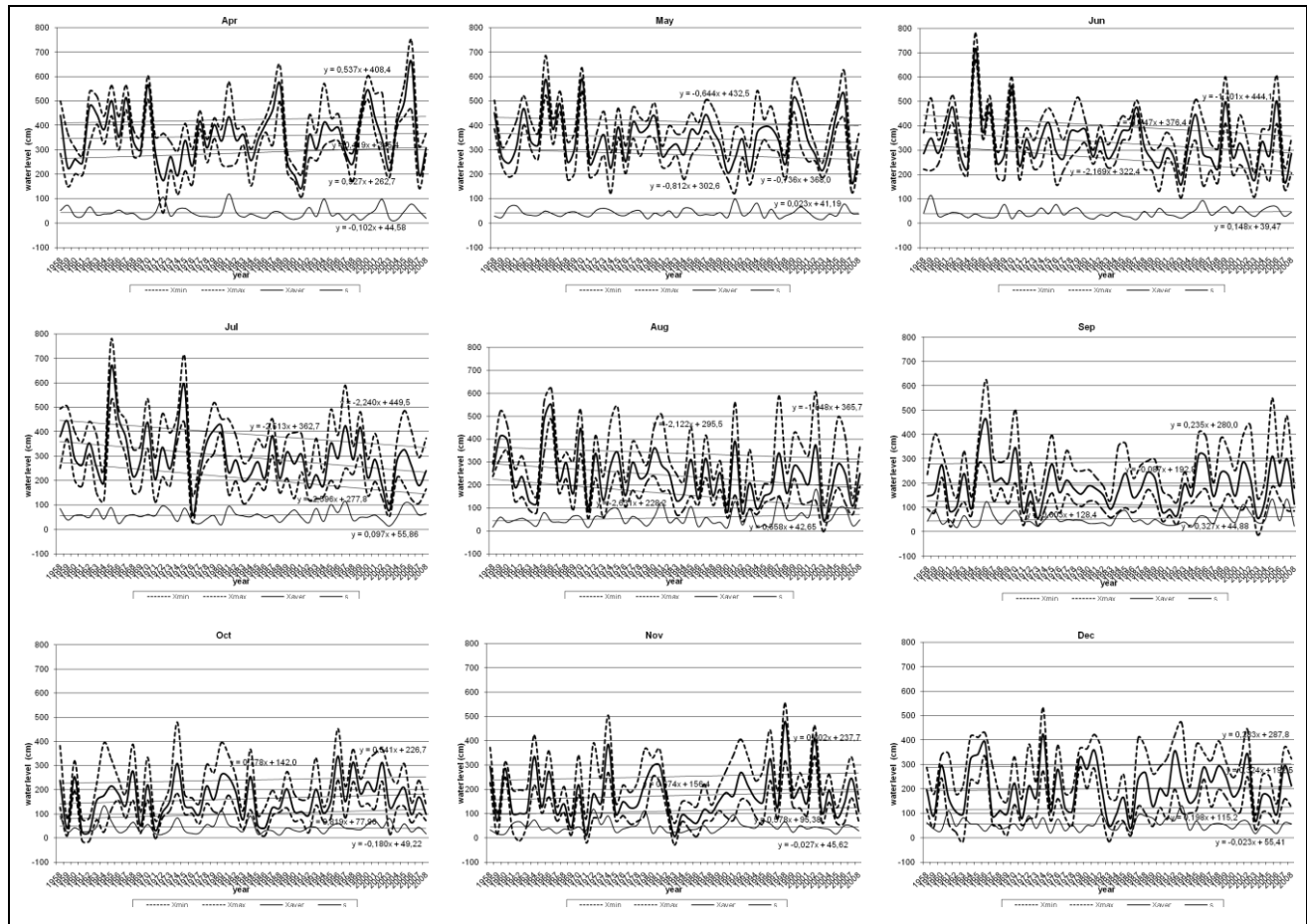


Fig. 7. Trends of changes of water level parameters by months



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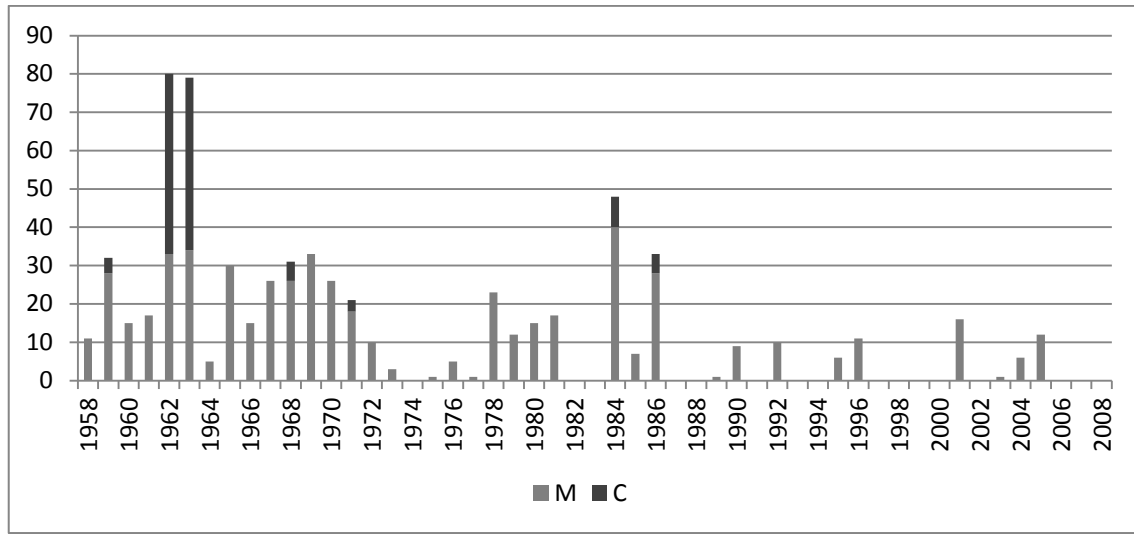


Fig. 8. Number of days with ice during winter (M – ice in movement, C – frozen surface)

Table 3 shows characteristic values of probability for the whole period and for parts.

Table 4 shows mutual relationships among parameters from table 2, i.e. monitoring of parameter changes over the period.

Table 3. Characteristic values of probability for the whole period and for parts

Probability	period			
	1958-1974	1975-1991	1992-2008	1958-2008
	t_1	t_2	t_3	Σt_i
P(per day)	0.0699	0.0277	0.0100	0.0359
P(per year)	0.0026	0.0019	0.0011	0.0019

Table 4. Monitoring of parameter changes over the period

Probability	P_i ratio (%)				
	$t_1/\Sigma t_i$	$t_2/\Sigma t_i$	$t_3/\Sigma t_i$	t_3/t_1	t_3/t_2
P(per day)	94.9	-22.8	-72.2	-85.7	-64.0
P(per year)	37.1	2.9	-40.0	-56.3	-41.7



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3.1. Discussion

Based on the presented data, the following rules can be defined:

- average annual water levels tend to decrease, in other words, average depths of the waterway have a tendency of decrease
- significant decrease of average and extreme water levels (min and max) for May, June, July and August
- increase of average and extreme water levels (min and max) in November, December and January
- tendency of probability decrease of occurrence of water levels lower than +80 and +100 cm (significant decrease of occurrence of water levels lower than +80 cm)
- standard deviation from average water level during the whole observed period, as well as for most months has the same value or has a tendency of slight decrease; except in August and September, where there is a tendency of increase
- significant decrease of the number of days with ice, as well as a significant decrease of probability of ice.

4. Conclusion

Risks are increasingly prevalent in complex transport and logistic chains. In addition to disruptions within each transport chain entity, the maze of interactions necessary for efficiently logistic operations can also be the origin for disruptions. Currently, there are no systematic methods to identify logistic risks in complex logistic chains. This is especially case in logistic chain where inland water transport presents one of the most crucial parts. Hence, in this paper, we propose a structured framework for characterizing risk in inland water transport chains. The first step of proposed risk management process is risk identification, and based on the proposed framework eight types of risks were identified in IWT chains: technology, infrastructure, political, economical, environmental, temporal, organizational, and legal. According to this, we analyze in detail river depth and ice occurrence as one of the infrastructure risks and crucial navigation characteristics of river.

The paper presented analysis of water level changes and occurrence of ice at one of the water meter stations in Serbia. The sequel to the paper requires further analysis of the given parameters at all water meter stations on navigable rivers in Serbia, according to the suggested method. In that way, a complete picture of the influence of climate changes on the parameters that influence the navigation on waterways of Serbia will be obtained.



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Decrease of average annual water levels, with the decrease of probability of water levels lower than +100 cm, i.e. +80 cm, points to the fact that the period of favourable water levels for vessels of up to 2.5 m draught has been extended. However, additional analyses, which would confirm the assumption that the probability of occurrence of unfavourable water levels, i.e. depths, has increased for vessels with draught of over 3.0 m are necessary. It should be also mentioned that, during the observed period, along the Danube over the 30 dams were built (especially on the upper Danube), so that the changes of water levels were mostly conditioned by the dam regimes.

On the other hand, decrease of number of days with ice, i.e. probability of occurrence of ice, dramatically decreased during the observed period. Even though, globally, the described phenomenon is negative, from navigation point of view it has a positive effect. Namely, fewer days with ice, i.e. low probability of occurrence of ice, extends navigation period, i.e. the period of possible exploitation of boats.

Globally, climate changes increase risk and produce negative effects. From the aspect of navigation on mid-Danube, i.e. the part of Corridor VII that goes through Serbia, at the moment the share of positive effects is greater than the share of negative ones. Of course, constant and more detailed analyses are necessary, as well as connection between relevant climate and meteorological factors and discovery of mutual dependence and influence on hydrological phenomena.

The case study demonstrates the risk probability estimation of restricted river depth as a first part on risk assessment process. This work provides a good platform for further extensions of risk assessment and management process. In the next step we have to analyze possible consequence of restricted river depth and measures for managing and monitoring this kind of risk, and on that way we will have completed process of risk management.

5. Acknowledgements

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6. References

- [1] Arief A., Rajagopalan S., Iftekhar A. K. (2009). Supply Chain Risk Identification Using a HAZOP-Based Approach, *AIChE Journal*, Vol. 55, No. 6, pp. 1447.
- [2] Doubrovsky M. (2005). Ukrainian and Russian waterways and the development of European transport corridors, *European transport - International journal of Transport Economics, Engineering and Law*, Year X, Number 30, pp. 14-36.
- [3] White Paper: European transport policy for 2010: time to decide (2001). European Commission, Luxembourg, p. 41
- [4] Jonkeren O., Rietveld P., Ommeren Jos. van (2007). Climate Change and Inland Waterway Transport: Welfare Effects of Low Water Levels on the river Rhine, *Journal of Transport Economics and Policy*, Volume 41, Number 3, September 2007 , pp. 387-411(25)
- [5] Jonkeren O., Jourquin B., Rietveld P. (2009). Modal-split effects of climate change: The effect of low water levels on the competitive position of inland waterway transport in the river Rhine area, (article in press), *Transportation Research Part A*, 2009, doi:10.1016/j.tra.2009.01.004
- [6] Kaplan S. (1997). The words of risk analysis, *Risk Analysis*, Vol. 17, No.4. 1997.
- [7] Norrman A., Lindroth R. (2004). Categorization of Supply Chain Risk and Risk Management in C. Brindley (Ed.), *Supply chain risk*, Ashgate Publishing Limited, 2004
- [8] Sulaiman O., Kader A.S.A., Saharuddin A.H. (2011). Collision Aversion Model for Inland Water Transportation: Cost Benefit Analysis Model, *International Journal of Trade, Economics and Finance*, Vol.2, No.1, 2010-023X
- [9] Škiljaica V., Bačkalić T. (2002). Technical-exploitative characteristics of the Danube and its influence on the development of the river-sea traffic, 6th International Conference on Traffic Science, Portoroz, Slovenia.
- [10] Škiljaica V., Bačkalić T. (2005). Navigation characteristics of the Danube and its influence on the main dimensions of the river-sea ships, Congress IMAM 2005, Lisbon, Portugal.
- [11] Škiljaica V, Bačkalić T., Škiljaica I. (2009). Determining the possible size of draught of river-sea vessels on the lower section of the Danube, 13th International Congress International Maritime Association of Mediterranean, IMAM 2009 Congress, Istanbul, Turkey, 12-15 October 2009, pp 559-564.



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Environmental Management System Certification

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Abstract

ISO 14001 prescribes the requirements for a system, not environmental performance itself. Similarly, certification is of the management system itself, not environmental performance. An audit is not conducted to ascertain whether your flue gas emissions are less than X part per million nitrous oxide or that your wastewater effluent contains less than Y milligrams of bacteria per litre. Consequently, the process of auditing the system for compliance to the standard entails checking to see that all of the necessary components of a functioning system are present and working properly.

A company can have a complete and fully functional EMS as prescribed by ISO 14001 without being certified. As certification can add to the time and expense of EMS development, it is important for you to establish, in advance, whether certification is of net benefit to you. Although most companies that develop an EMS do in fact certify, there are cases where certification does not add immediate value. Certification is not always beneficial to small and medium sized companies. Certification is not always necessary for companies with one or two large clients with environmental demands who are satisfied that you have a functional EMS (second-party declaration). Whatever decision you make, it is important to remember that just as a driver's licence does not automatically make you a good driver, ISO 14001 certification does not automatically make your company environmentally benign or ensure that you will continually improve environmental performance. The system is only as good as the people who operate it.

Keywords: EMS, environmental performance, ISO 14001, the management system.

JEL Codes: Q56, L15



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1. Introduction

All components of the environmental management system should be coordinated with other important functions of the organization, especially at the policy level. For example, the policies, objectives and targets of the finance, operations and safety departments must be considered and, if possible, be compatible with those of the environmental department.

If an organization is already ISO 9000 certified or at least close to it, considerable time can be saved. For example, the following materials already prepared for ISO 9000 certification can be used for ISO 14000 with only minor change: organization and personnel procedures, records and control of documents, audits and reviews. Many other sections from ISO 9000 documents can be used as a starting point; however, considerable modification would need to be done, for example on the procurement section, to bring them up to ISO 14000 standards (Rothery, 2009).

Most organizations are already in the process of environmental management. Therefore the starting point in the certification process will be different for each organization depending on how long they have been in operation and how detailed their present environmental system is.

2. Initial assessment and definition of purpose

Before an organization begins massive design and implementation efforts, an initial assessment should be done. This will help determine the most critical needs exist for new environmental management systems. For example, has an effective policy been established by executive management? If most major systems are in place then the initial assessment will suggest where upgrades are needed. A formal initial assessment document is not required for certification. The assessment should identify documents, actions and procedures that are required for certification, such as a policy statement, the management system, planning, operations, personnel, training and goals.

A definition of purpose should be made in association with the initial assessment. The purpose could be to better protect the environment, to become ISO 14001 certified, to become more cost effective, to improve community relations, to improve market appeal and numerous other purposes.

To be successful, the entire certification effort should be summarized and presented in the initial assessment and approved by top management of the organization. The initial assessment should be presented to top management in a fashion that will attract their attention. This presentation may come from



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the organization's environmental manager or an outside consultant. The initial approach can be either verbal or written, depending upon the situation . For example, it may be suggested at a routine meeting of company management.

A preferable method of introduction over casual mention during a meeting is by an internal letter to one or two of the executive managers. Figure 1-1 is an example of a letter or memo that could be used. It is important to make the correspondence clear and brief. A telephone call or a letter from a consultant briefly suggesting the need for the certification and offering to outline further details and benefits are other possible introductory ways.

Whoever approaches management initially must, without fail, be thoroughly familiar with ISO 14000 and how these standards will apply to the specific organization. They should be prepared to briefly outline at the first meeting the background of the standards and their impact on the organization, consumers and the public. The individual's knowledge and presentation at this meeting will determine the degree of acceptance of

TO: CEO

FROM:

SUBJECT: ISO 14001 certification

I need to bring to your attention that there is currently a monumental effort by countries throughout the world to establish a universal standard for environmental management. These standards will affect all phases of our operation. Organizations who meet and achieve these standards applicable to their areas of endeavor will be certified by independent ISO auditors, as was the case with ISO 9000. Certification is not mandated by any country or political organization but effectively becomes necessary if one is to remain competitive in business.

We have followed the development of these standards and are in a position to be of service to you to obtain certification. I suggest a preliminary meeting with you to discuss this in greater detail.

Fig. 1 Example of an ISO 14000 Concept Introduction Letter.



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the certification process by management. The advocate must be prepared to answer searching questions in all areas relating to certification. An outline to obtain certification could also be presented at this time.

The initial assessment can be conducted by a consultant or by inhouse personnel. Whoever is responsible for the assessment must view the work and environmental effects created by the company from an entirely neutral or independent view. If not, a genuinely effective policy based upon this assessment will not be developed. The resulting program will not attain the necessary results and certification will be delayed or never obtained. One can say, therefore, that the future of the organization may depend upon the thoroughness, accuracy and integrity of the initial assessment. All initial assessment work with results and conclusions must be documented for reference during certification procedures.

The initial assessment should include the followind:

- *Copies of ISO 14000 Standards* – At least the standards generated by SC1 or the EMS standards should be attached along with the annexes and guidance documents SC1. The standards prepared by other subcommittees, which are not required, would not have to be attached.
- *A Listing of Major Applicable Regulations* – A listing of applicable regulations and the sections of the most important regulations should be assembled. If this is too great of a volume of paper, then it might be more meaningful to attach regulation summaries, guidance documents or regulatory summary charts.
- *A Listing of major Impacts of the Operation* – Considerable attention to detail is especially important for this step. All impacts, no matter how small, should be identified. Quantification and elimination of insignificant impacts will occur later. Impacts should be identified that are associated with the site/operation, raw materials, vendors, product and/or service.
- *Current Environmental Controls* – A listing of current actions should include their effectiveness, completeness, staffing, funding and present top management support. This would also include procedures in place, use of consultants and any major environmental control system currently operating.



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- *Additional Activities Needed and Areas to Be Covered* - At this point in time a best guess should be made of what systems should be added to protect the environment. These may later become recommendations made to management to improve environmental controls and/or allow certification. As the assessment and planning continues, more systems will become obvious.
- *Estimated Cost and Benefits* – When all these recommendations are made to management, the first questions asked will probably pertain to the costs and benefits. If they are at least estimated roughly at this point, funding activities can be started earlier.

3. Policy Preparation

A comprehensive environmental policy statement that will cover all of the employees in the organization should be prepared. The policy should address impacts and regulations in a broad sense. It should also be supported by senior management and communicated to all employees and interested public. The policy preparation should start very early in the process and be continually upgraded.

Policy preparation needs to be done very early in the process since upper management approval is key to success. Even if the policy is only roughed out at this point, it will at least provide overall direction to the process when it is especially needed. A rough draft of the policy should be widely circulated for upgrades and input from as many employees as physically possible. This will increase acceptance to the maximum extent possible.

3.1. Obtain up – Front Resources

Certain resources will need to be obtained early in the process in order to complete the rest of the steps. Financial resources are the first that must be made available. Organization resources, such as personnel, may also have to be established, if they are not already in place. Once this occurs training resources can be identified and provided. Purchase of supplies and other support should also occur.

3.2. Prepare Procedures for Identification of Impacts and Requirements of Others



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Procedures for identification, assembly, and analysis of impacts and regulations into the organization's systems are needed. Even though they are not required for certification, it is a good idea to actually obtain the regulations and impacts and assemble them into one or two binders. This step is essential and allows for the meaningful design of environmental management procedures and controls.

3.3. Objective and Targets

Objectives and targets should next be prepared in order to achieve the policy statement. The impacts and regulations previously identified should also be considered when the objectives and targets are prepared. The objectives would include statements such as establishment of a waste minimization program. Targets would be specified for each objective and present numerical goals, such as 10 tons of acetone waste recycled in 2006. As with the policy statement, the objective and target preparation should start early and be continually upgraded.

3.4. Utilization of Existing Documents and Resources

If documents already exist for successful programs that address some of the ISO 14000 considerations, they should be utilized. These could include most of the good environmental management procedures and many of the quality systems already in place. For example many ISO 9000 documents and systems, such as training, could be used as is or with very little adaptation since there are many common links or elements. Appendix B of the actual SC1 specification lists the documents that are common to both ISO 14000 and ISO 9000.

3.5. Preparation of New Operating Procedures and Action Plans

Once the above steps have been completed it is time to prepare the new procedures that are missing. Far too often many environmental management systems are composed of unwritten procedures and standards. This usually leads to confusion, lack of direction and negative environmental impacts. Even if an individual plans to an environmental control action only one time, it is still good to put it in writing so that questions can be answered when they come up about what was done.

An environmental management manual(s) should be set up if one does not already exist to contain all the different procedures and standards. It should also contain a copy of the company policy. A procedure or binder that deals with regulations and one that presents the procedure for identifying and dealing with



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impacts are additional examples. If a very rough draft or initial collection of existing materials is done quickly, the task will not seem as overwhelming.

3.6. Implementation of Programs

Now that the paperwork is done, it is time to start the real action. Far too often some organizations only write and talk about environmental protection. The environmental management systems need to be implemented to actually help the environment. This may seem obvious; however, in real life administrative delays, apathy, and inadequate personnel and training can prevent environmental protection and improvement from happening. A good top management policy, energetically pursued will assure success. Knowing that continued operation depends upon innovative environmental protection, good management will create the necessary authority and funding for an effective program. The bottom line is that certification will require implementation in addition to the preparation of procedures and documents.

3.7. Ongoing Auditing, Management Reviews, Correction and Follow – Up

By continually auditing or reviewing the progress an organization is making in environmental management, it is possible to suggest meaningful correction and follow-up. This field is changing so rapidly that adjustments need to be made almost daily. Once the audits are completed, the corrective actions need to be made promptly. Liability problems develop if the file shows correction was needed but not done. The audits, reviews, correction and follow-up will result in continuous of the environmental management system. It is always possible to improve the quality of the environmental controls with a net positive impact on the organization and the living things within and around it.

3.8. Is ISO 14001 Registrations Required?

This simple example illustrates how European environmental directives can affect American manufacturers and the processes they use. But would this change in process operations, required to adapt to the Italian market demand for heavy metal-tree paper, automatically require American suppliers to achieve ISO 14001 certification/registration? Drawing on the ISO 9000 experience, I believe that the reasonable answer would be yes. Why? Suppose that Italian government now adopts a national directive stating that all suppliers to the Italian government must be ISO 14001-certified. Would that affect non-European suppliers? Probably yes. Indeed, since Italian suppliers will now have to become registered to ISO 14001 or an equivalent, the legal requirement is very likely to move down the supplier chain until foreign suppliers eventually become affected by the directive. Indeed, if an Italian supplier obtains some of his products,



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subassemblies, or even raw materials from overseas, he will have little choice but to require his (overseas) suppliers to become ISO 14001-certified/registered. The global process will begin. Within a couple of years, U.S. suppliers will begin requiring ISO 14001 certification from their own (national) suppliers.

The above scenario is not far-fetched. In fact, some countries are already incorporating ISO 14001 requirements into their own legal requirements. In Brazil, for example, companies have been financially motivated to achieve ISO 9000 certification. Brazilian firms registered to one of the ISO 9000 standards can apply low-interest loans, which in Brazil can be as low as 4 percent per month, an excellent rate when compared to the 45 percent a month experienced in July 1994! Encouraged by the program (Brazil has the highest number of ISO 9000-registered firms in Latin America), the Brazilian government decided, in 1995, to implement a similar program with ISO 14001. No doubt, other countries will follow. It remains to be seen, however, if Brazilian firms that import goods from the United States will require their U.S. suppliers to be ISO 14001-registered/certified.

3.9. Internal ISO Standard Audit

When an organization feels it is close to completing the items noted above, it is a good idea to do an internal audit. This type of a practice audit will help identify last minute corrections that still need to be done. The audit is only valuable if the internal auditors are trained to be critical of their own organization, which is sometimes hard to do. A properly performed audit by well-trained internal auditors who are given sufficient latitude to perform their jobs will save the organization time and money in the long run. It will be far cheaper for an internal team to identify and facilitate correction of as many problems as possible than to hire external auditors.

3.10. Outside Auditor Audit

The actual audit for certification purposes is usually done by outside independent auditors. More credibility is usually given to these thirdparty audits because they are felt to be less subjective. On the other hand the auditors may not be familiar with the particular industry being audited. If this is the case it is a good idea to start a positive relationship with the auditors by providing some up-front technology education. Overall, however, the auditors must be qualified to do environmental management auditing and approved by ISO before they can give certifications. These individuals are highly trained in auditing and pride



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themselves in being tough. If ISO 9000 is any indication it would not be surprising to see a 50 percent certification failure rate for first-time audits.

3.11. Certification

Based upon ISO 9000, if the organization passes most components of the audit, the certification will be awarded. This would apply only if the failed components are no considered major deficiencies. Failure requires corrective actions and reassessment within a specified period of time.

Certification can occur in three different ways. If it is done by an outside independent auditing firm that is approved by ISO, the certification will carry the most weight. A second-party certification occurs when it involves suppliers under contract. In this case the audit could be done by the organization that uses the supplier. Self-certification obviously carries the least weight; however, it is better than no certification at all. No matter which type of certification method is selected, it is at least a proactive step in the right direction.

TC207 is promoting integration and certification of ISO 14000 with ISO 9000 via a coordinating committee (TC176/TC207). Integration is recommended by some since they are related and could complement one another in certain aspects. Integration, however, could threaten certification of both if one is not up to the standard. Whether they are officially combined or not, they must at least be compatible.

3.12. Continual Improvement

By doing routine internal audits and monitoring, it will become evident that the policy, objectives, targets and plans will have to be modified. Frequently upgrading the entire system will keep it cost-effective and impacts will be reduced to the maximum extent possible. Continual improvement is not really a last step. It is an integral part of every step in environmental management whether it is mentioned or not.

4. Conclusion

As was true for the ISO 9000 series, the ISO 14001 standard will mean very different things to different companies. Large chemical plants, particularly those that already satisfy Responsible Care, should have little difficulty understanding the intent of the standard; they may nonetheless experience some difficulties implementing ISO 14001. Small to medium-size companies will most likely experience the most difficulty with the standard. The obvious challenge for small to mediumsize businesses will be the lack of available human resources needed to implement and maintain ISO 14001. For companies that are already ISO 9000-registered, the task should be much easier because, in essence, ISO 14001 is nothing more the principles of quality assurance extended to the quality of the environment in general. Thus, whereas ISO 9000 focuses on



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product characteristics and customer satisfaction, ISO 14001 emphasizes environmental characteristics and the demands of the community surrounding an organization.

5. References

- [1] British Standards Institute. 2008. Specification for Environmental Management Systems/14001. Standards Board.
- [2] Burhenn David W. 2005. Briefing on ISO International Environmental Standards. Los Angeles: Sidly and Austin.
- [3] Cutter Information Corporation. 2009. Will There be Dueling European and International Management Standards? Bussines and the Environment.
- [4] Environment Today. 2007. ISO Work Groups Begin Tackling Envirostandards. Environment Today. December 2007.
- [5] Morrison and Foerster. 2006. Land Use and Environmental Law Briefing-International Standards for Environmental Issues-Is Europe Moving Ahead of the U.S.? San Francisco: Morrison and Foerster Law Firm.
- [6] Morrow, M. Chemical Week. 2009.
- [7] National Center for Manufacturing Sciences (NCMS). 2005. Focus-Exceeding Partner Expectations. 2005.
- [8] Rothery, Brian. 2009. ISO 14001-Implementing the Environment Management Standard and the EC Eco-Management Scheme. Brookfield, VT: Grower Press.
- [9] SRI Internacional. 1994. Environmental Strategies-Design For Environment. A Newsletter from SRI International. 2007.
- [10] U.S. Sub Technical Advisory Group 1 to Technical Committee 207. 2005. Unpublished and uncopyrighted committee paperwork.
- [11] Wortham, Sarah. 2003. International: Get Ready for Worldwide Standards. Safety and Health. 2003.



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Urban Development Toolkit for Climate Change: Critical Review of State Intervention in Praxis

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Abstract

This paper aims to review the various forms of state intervention in urban planning, and its purpose is to reconsider guidelines for solving problems in cities, caused by climate change.

After World War II, urban planning was guided by centralized state management, in the scope of progress and social justice. State intervention was recognized as an instrument for creating new models of the city spatial organization. However, because of the new market conditions arising, the policies about Urban Development came in the focus again, in order to control global influences, mainly climate change (the costs of construction, environmental pollution and hazards). It is therefore necessary to return again to the public intervention in urban planning. This will not be easy, because it has to be consistent with democratic freedoms; some of them should be strengthened, and some limited to ameliorate the effects of climate change.

In conclusion, the set of general guidelines is expected, in order to translate the policy measures for climate change mitigation, into the instruments urban development is controlled by. Therefore, the changes in defining of building codes are expected, as well as the standards for energy conservation and land-use control (zoning, taxes and urban regulations, etc.).

Keywords: Climate Change Mitigation, Regulation, State Intervention, Urban Planning

JEL Codes: Q54, O2, R 58



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1. Introduction: the background of the research and its aims

This paper seeks to address the challenge on regulation of urban development in the context of climate change. Climate change, nowadays, is according to some referent authors, the ultimate risk multiplier (Roaf, Crichton & Nicol, 2005). Especially, the region of Southern Europe is ranked in the IPCC report as highly vulnerable to climate change¹. The biggest economic damage, partly in Serbia, may be caused by the drought, floods, storms, landslides, water erosion, and in recent years increased frequency of occurrence of heat waves and forest fires. Temperature trend in Serbia in the period 1950-2008 is also marked upward (about 1.20°C), as the constant decrease in annual rainfall (about 120mm) was recorded. In the Research work named “Changes of some climatic parameters in the urban areas of the Republic of Serbia” is concluded that “large urban areas in Serbia have the effect of amplification of extremes – drought in the wider territory in the cities even drier and those with increased rainfall also tend to extreme values.” (Jovanovic, Savic & Despotovic, 2009).

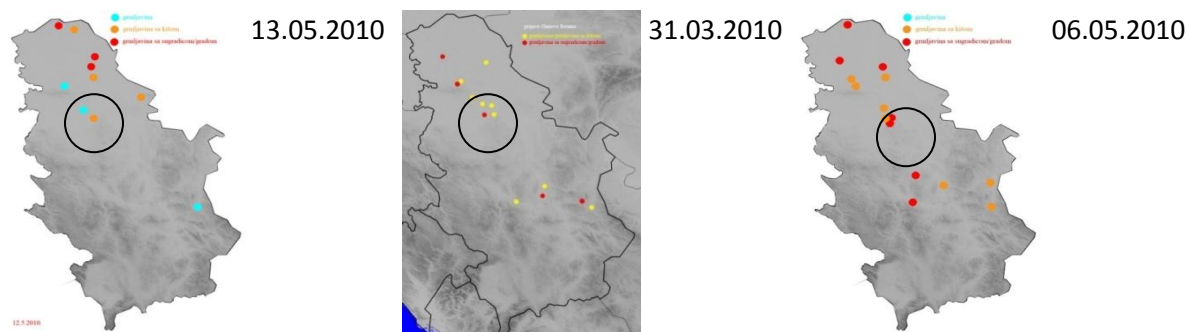


Fig. 1: Climate change and evaluating the quality of urban settlements in Serbia: distribution of natural disasters during the year 2010. Source: “Changes of some climatic parameters in the urban areas of the Republic of Serbia” (Jovanovic, Savic & Despotovic, 2009)

¹ IPCC report AR4 (2007)



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Problems mentioned may produce even more unfavourable effects in cities in Serbia, and would be manifested primarily through the increase of water stress due to lower availability of potable water; increasing the frequency and intensity of torrential floods and landslides, water quality deterioration in the conditions and more frequent dry periods or floods, increase evaporation, reduced rainfall, runoff and river water level and shifting climatic zones to the north. Those are the problems which will have to be treated and solved in the very close future.

In the period after World War II, urban development control in Serbia mainly meant centralized management of the state in the interest of general economic progress and social justice, but the urban development was not focused to the environmental problems. In urban planning during the first half of 20th century, the state intervention and nationalization of industry was mainly recognized by the attempts to create new garden cities². Ethic premises of urban development control were healthy environment and sustainable development only, not economy and efficiency. However, incoming critics about the state intervention, such as ones from economist Friedrich Von Hayek, argue that only the market may define pricing decisions in the economy, including the cost of pollution protection, air emissions, and other causes of climate change.

Nowadays, the need to reconsider and raise again the public intervention in urban planning is manifested increasingly, mainly because of costs and benefits of stakeholders, as well as because of climate change influences. Public intervention in urban development will not be easy to realize, because it has to be consistent with democratic freedoms; some of them should be strengthened, and some limited to ameliorate the effects of climate change. The set of general guidelines is expected, in order to run up the policy measures for climate change mitigation, into the instruments urban development is controlled by. Therefore, the changes in defining of building codes are expected, as well as the standards for energy conservation and land-use control.

Observing the problems of climate change, the expected goals in state intervention for urban development in Serbia may be³:

- The application of standard methods and guidelines based on climate change mitigation and adaptation (use of conventions, standards and best practices and experiences in the EU and other developed countries)
- Existing a special state program for treating the problems of spatial development caused by climate change; the concept which includes creative instruments, measures and policies of coordination and participation the competent institutions, as well as local communities.

² “Archipelagos of settlements in the sea of green”, an idea from Belgrade Master Plan 1974

³ The Draft of Spatial Plan of the Republic of Serbia 2014 -2021, pp 100



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2. Theoretical background of principles and methods of urban development control for climate change

Adaptation to climate change is, according to Gidens, "The ability of the environment to support change, without formation of hazardous situations" (Gidens, 2008). From the social point of view, the discussions about the climate change on adaptation and mitigation has arisen to estimate and resolve conflicts between the current neoliberal and green politics, as the ultimate need to create "low carbon, positive model of society" in the future.

Lewis Mumford indicated that discovery of the cities' history has its significance and linkage to gravitating agricultural land (Mumford, 1961). Irrigation systems in Egypt are very important to understand the principles for adaptation to climatic conditions. As of the first Paleolithic - Neolithic unification, and the first hint of this form of human community, Mumford follows the establishment and development of urban projects, as well as the transformation, the emergence of megalopolises and policies for various reasons, because of climate change.

Hence the idea to examine the changes in construction, building codes, standards for energy savings and control of land use. That's the reason fundamental studies in planning an econometrics are arisen again, in order to predict the costs and investments of urban development for climate change, to trade greenhouse gas emissions vs. taxation broadcasters⁴. Measures to be implemented are also increased water saving, more frequent rotation of crops, floating gardens (aquatic weeds on which crops can be grown), better thermal insulation of buildings, using materials resistant to floods and storms.

Adaptation of the economy in building the cities is the most important one: the change of price of real estate and commodities, and the amount of insurance to protect from hazards and natural disasters.

The instruments of urban development control in democratic societies

In the 20th century, economist Keynes WAS influenced by his doctrine on state intervention methods (Keynes, 1933). It led to the development of public services and public sector in the industrialized countries of Europe and North America. The goal was to intervene at locations where there is no strategic interest of the state, or local community interests, in order to realize a project / public realm (development management, public goods, redistribution of resources ...)

⁴ Every resident would be determined by the annual volume of gas in the energy consumption in households, work and travel. By unused quotas actors could trade



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In order to reduce the effects of climate change, main government measures in modern societies are focused on: (Gidens, 2008: 113)

1. Problem solving climate change and management of energy risks.
2. Work on economic and political rapprochement. Politics determines the courses of action; the economy provides means to an end.
3. Intervention in markets to the institutionalization of the principle of "polluter pays"
4. Opposition to the interests of investors that block the initiative to solve problems caused by climate change.
5. Maintenance problems climate change at the centre of attention in the media

The following measures are of the most importance in the context of climate change mitigation in urban development:

6. Creation of economic and fiscal environment for the transition to low carbon economy
7. Devising measures to adapt to new climate change
8. Merging of local, regional, national and global aspects of policy relating to climate change.

There are several main changes in the applying methodology of regulation of urban development for climate change in Europe, started in the second half of the 20th century:

1. New, "neoliberal" understanding and expanding the concept of state interventions, to the question of who provides / finances and determines the modes of use of public realm
2. The European Commission Directive 2002/91/EC, adopted in December 2002, designed to result in savings of 45 million tones of CO₂ by 2010, requires that member states
3. Applying a general framework for calculating the energy performance of buildings.
4. Applying minimum standards of performance for all new buildings.
5. Applying minimum standards of performance for existing buildings over 1000 m² that are subject to major renovation.
6. Ensuring that heating systems and air conditioning are inspected regularly.
7. Ensuring that when a building changes occupants an energy performance certificate is made available and displayed in all public buildings plus those visited by the public

2.1. Several basic "packages" of the urban development toolkit for climate change



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Land policy: Restriction of choice to make a purchase contract for urban land. The state is treated as an equal side to a contract of sale of land (the effects of land transactions that cause negative externalities – climate change are controlled). Certain activities are restricted and obligations to protect the local community are imposed, and the investor a guaranteed income is considered too.

Limitation of private-property rights: Provides an optimal and appropriate allocation of property rights. Authorities in some countries of Western Europe and the United States purchase the land and then determine the conditions of its use (the assumption is the existence of the State Funds).

Fiscal (tax) policy: Corrective taxes, according to the English economist Pigou (A.C. Pigou, 1920). They can be applied in order to stimulate or sanction indifferent user behavior (unused capital stock tax, tax revenues on a per acre basis (in the USA)), which is charged the separate amount for each annuity zone. Urban planning takes part in forming of the tax system, with the aim to mitigate and adapt the cities to climate change.

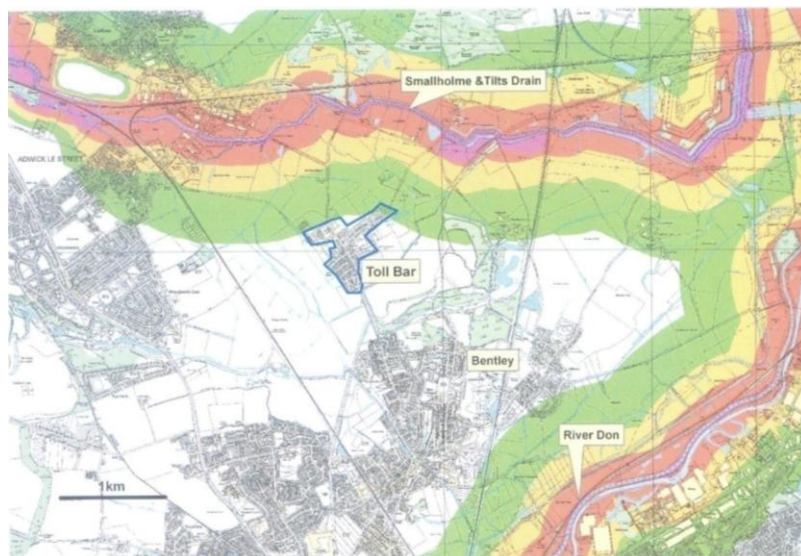


Fig. 2: Map of the tax zones in Bentley area, showing the different levels of hazard caused by climate change. This map is currently used by insurance companies. Source: Roaf Crichton & Nicol (2006) *ADAPTING BUILDINGS AND CITIES FOR CLIMATE CHANGE: A 21st century survival guide*. Burlington: Architectural Press



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State subsidies are determined by the difference between marginal social benefits of urban public goods and the marginal private benefit of the companies (investors). Many countries have made a shift in energy policy, and instead of relying on oil, have switched to nuclear, hydroelectric and energy from biomass. Tax policy is moving in the direction of defining compensation due to greenhouse gas emissions (in Sweden even in early eighties of the twentieth century). In Denmark, the policies of mitigation and adaptation is directed to the subsidy of small biomass power plants in homes, the development of “smart grids” (a decrease of state support measures referred to occurred when the centre - right government was elected 2007). In Serbia, The energy potential of small urban and rural settlements in the region of Vojvodina has been explored by Ivan Simic, from the Faculty of Architecture in Belgrade (Simic, 2011)⁵

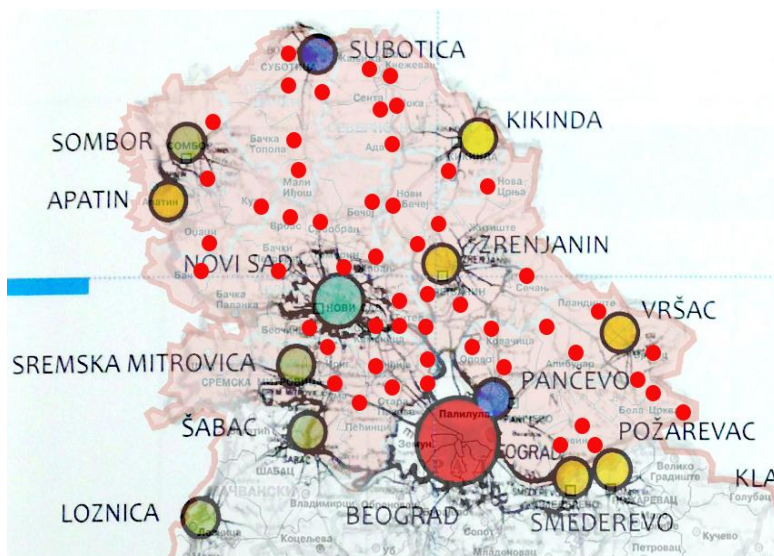


Fig 3: The network of cities “developing engines” and supportive network of small settlements in Vojvodina, Serbia.

Source: Simic, I: *URBAN BATTERIES - The energy potential of small urban and rural settlements in the region of Vojvodina*, IAS-STS Conference 2011, Graz

⁵ Simic, I: *URBAN BATTERIES - The energy potential of small urban and rural settlements in the region of Vojvodina*, IAS-STS Conference 2011, Graz



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Fig. 4: The concept of urban batteries in Vojvodina. The whole longitudinal side of a housing lot is always facing the sun. Housing lots have appropriate spatial and functional configuration for installing small wind turbines. Source: Simic, I: *URBAN BATTERIES - The energy potential of small urban and rural settlements in the region of Vojvodina*, IAS-STs Conference 2011, Graz

Transferable permissions: The idea that the "polluter should pay" is more easily accepted than other ideas in order to mitigate the effects of climate change. The amount of tax is related to climate change effects and greenhouse gas emissions market of greenhouse gases (market transferable permits).

The United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol and emerging greenhouse gas emissions trading schemes are based on calculations of the tonnages of each greenhouse gas (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆). National inventories of greenhouse gas emissions are calculated and reported for UNFCCC compliance (and for future compliance with the Kyoto Protocol if it enters into force). Each metric tonne of non-CO₂ gas is converted to CO₂ equivalents using a global warming potential number. Air conditioned buildings in cities use significantly more energy to operate than the naturally ventilated ones. The following figure shows the building types and their annual carbon emissions.



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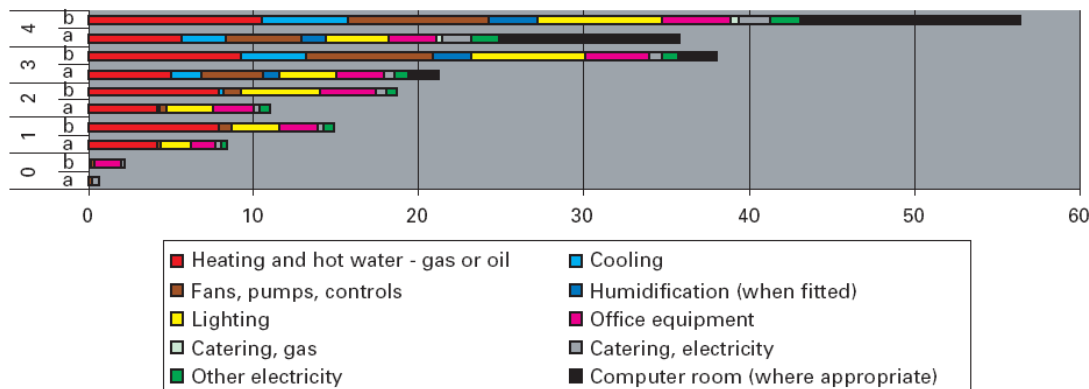


Fig. 3: The building types and their annual carbon emissions. Type 1: traditional office building; type 2: open plan naturally ventilated building; type 3: air conditioned office building. Source: Roaf Crichton & Nicol (2006) *ADAPTING BUILDINGS AND CITIES FOR CLIMATE CHANGE: A 21st century survival guide*. Burlington: Architectural Press

Planning scenarios: The possibility of using methods in the preparation of scenarios realize urban planning in a systematic and better assuming the activities to be supported, activities that must be avoided, as well as possible consequences of decisions to the activities / stakeholders.

Alternative scenarios (preliminary alternatives) are used as means to enable preparing decisions concerning the planning solutions. It includes the following essential items (Vujošević, 2004):

1. Performing consequences and risks in their implementation
2. Appropriate analytical insight into the expectations of various stakeholders
3. Focusing on the key problems / issues / aspects
4. Reduce the possibility of manipulation in the use of expert knowledge or information
5. Mapping the costs and benefits of various options
6. Reliable insight into the scale of preferences and patterns of behavior / response of actors and drawing conclusions in the direction of possible means of implementation;
7. Improving conditions for the application of compromise and consensus in resolving conflicts

Public-private partnerships: "The contributions of public-private partnerships, is understood as a specific type of networked climate governance, to effective and legitimate climate governance. The appraisal of networked governance in the climate change arena is based on their potential contribution to effective climate change mitigation and adaptation" (Dryzek, 1997). The main idea of this partnership is to share the risk when investing in projects that are unprofitable for the private sector (payback period is longer than 10



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years). Condition for establishing a partnership of private and public sectors in the implementation of a public good refers to the exercise of appropriate combinations of purpose / activities, within a specific structure or location of one of the important issues is to create the best conditions (distribution) of investment and profit by Pareto principle. John Dryzek considers eco-technological modernization as the "partnership in which governments, companies, moderate defenders of the environment and scientists collaborate on the adaptation of capitalist political economy of environmentally friendly attitudes." (Dryzek, 1997)

2.2. Supporting the city development by urban plans and projects

The multifold space planning problems in the context of climate change adaptation appears in praxis. The concentration and compaction of high rise buildings permits intensive land use, but causes population over-crowding in localities, at certain times of the day/week. This can result in drastic effects on open areas, streets and parks, and places excessive strain on the existing infrastructure, such as parking, roads, transport, sewerage, water and energy.

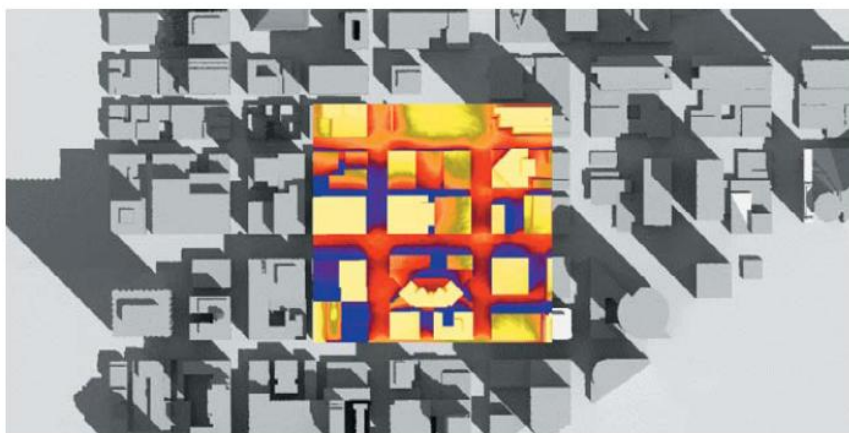


Fig 4: Simulation of an aerial view of San Francisco, showing the surfaces that get most solar gain over a year and shadows that buildings of different shapes and heights cast across an area of the city. Source: John Mardaljevich, Institute for energy and Sustainable Development, De Monfort University, Denmark. www.iesd.dmu.ac.dk

Therefore, the following objectives in urban planning appear, in order to prevent the harmful effects of climate change:



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1. Construction of bypasses - development of an efficient traffic (pedestrian connections, mass transportation systems)
2. Reclamation mines and flooded areas (decontamination of terrain, building dams)
3. Dislocation of industrial plants
4. Planting belts of greenery and lifting technical barriers
5. The development of "clean" system of heating and energy networks

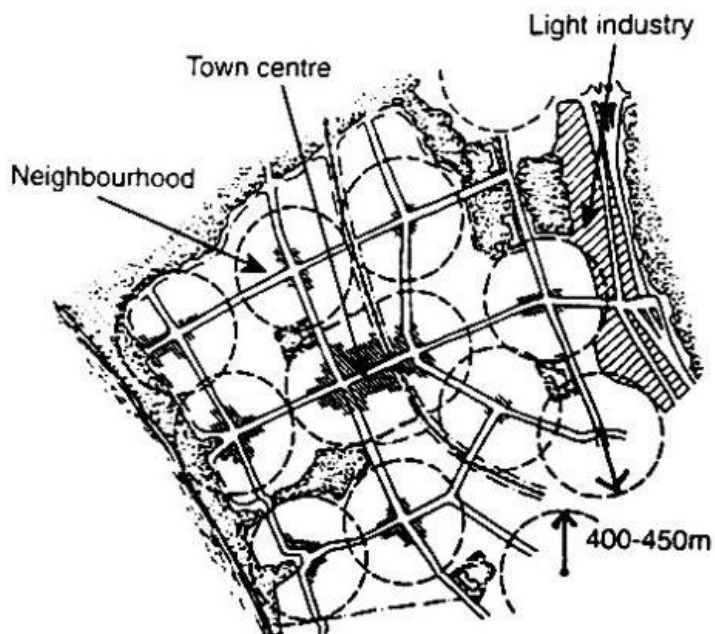


Fig. 5: Graphic scheme of urban parameters for climate change mitigation and adaptation – spatial distribution: pedestrian distances (neighbourhood - up to 500m), integrated (mixed functions), building density index (i) = 0.5-1, occupancy percentage (Z) = max 20%, number of floors (S) max = $P + 1$. Source: Author

A high rise building usually consists of a shaft and elevators surrounded by living units on each storey. The properties of openings in the south (sun: solar gain) and north (cold wind: infiltration) and the very limited opportunities for the floor plans, with restricted walk distances to fire exits and access shafts, drastically reduces the organizational possibilities of the plan.



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Fig. 6: The Pompidou Centre in Paris, designed by Renzo Piano, Richard Rogers and Gianfranco Franchini, 1977 – nonresilient building for climate change. In 1996, the building was closed for four years for the total refurbishment, for which the final bill was a further 576 million francs. Source: www.centrepompidou.fr

Considering problems mentioned above, influential parameters for planning are as follows:

1. Construction rules, which oblige the establishment of open space
2. Rationalization of land use, through a redefinition of purpose incompatible with the environment
3. Commitment to the protection of sites with distinct identity
4. Preserve the network of social groups in the community
5. Enhance the network of public services in a residential zone
6. Definition of annuity zone in the city, with different taxes for each zone
7. Improving urban design commitment to the construction of attractive urban rappers and dominant, as a driver of activity in an open city space
8. Reconstruction and improvement of transportation and utility infrastructure



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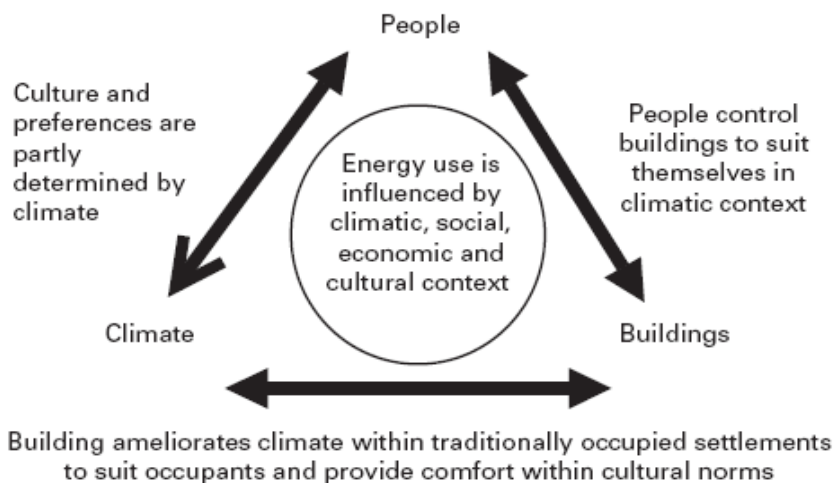


Fig. 7: The traditional three-way interaction between climate, stakeholders, and urban spaces, that dictates our energy needs. Source: Roaf, Crichton & Nicol (2006) *ADAPTING BUILDINGS AND CITIES FOR CLIMATE CHANGE: A 21st century survival guide*. Burlington: Architectural Press

This followed by the questions: who will pay the expenses and what is their price? Is it possible to use existing infrastructure (social, economic, built)? Is it possible to modify built environment (to establish the different regimes and ways of organizing its work), in order to come up with a solution regarding the climate change in cities?

In the UK will be built 10 settlements by the year 2013, in which the principles of adaptation to climate changes will be applied. They will have no more than twenty thousand inhabitants each. These cities will be aimed mainly for pedestrians, and will have a small number of roads, where the speed will be limited to 25km/h (integrated street, with curbs misplaced). For residential buildings will not be provided any parking garage (realized settlements of this type will have 0.7 parking spaces per dwelling).



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NEIGHBOURHOOD VISION

Respect and integrate natural site systems with development and community to create a characteristic and functional place that maximizes site opportunities and celebrates its cultural and ecological context.



KEY DESIGN ELEMENTS



Fig 8: Spatial model display and distribution of activities of new settlements - Dawson Creek Sustainable Neighborhood Plan. All basic facilities will be as far enough AS to reach them can reach on foot (distance up to 500m). The buildings will have good thermal insulation, will be provided BY underground systems for recycling, and most of the energy will provide solar panels, windmills from biomass obtained from local sources. Source: HB Lanark planning and design company presentation http://www.hblanarc.ca/projects/project_details.asp?ProjectID=40

For the example, the 15 - 20 cm isolation is applied on the objects of the timber in Malmö . Shutters on the buildings are equipped with solar cells. Each building lot has 0.7 parking spaces per dwelling. A dense network of public transport is provided. Urban planning is supported by networks of small communities that rely on its manufacturing strength and energy (the first stadium of transformation in some countries has already been realized - urban agriculture). "Back to the local activities in almost all aspects of travel and traffic" Modifications of construction vehicles for new forms of energy were required: hydrogen, solar energy, bio-ethanol.



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Architects:
Sue Roaf and David Woods

PV:
Energy Equipment Testing:
Bruce Cross,
Cardiff with Jeremy Dain,
Inscape Architects, Bristol

Solar hot water:
George Goudsmit, AES Findhorn

Owner:
Susan Roaf

Location:
Oxford, UK, 51°N, 1°W, 40 m
above sea level

Climate:
Temperate

Area:
232 m², 250 m² including porch
and sun space

Fig no 9: Resilient dwellings may perform like the Oxford Ecohouse, that has minimal carbon dioxide emissions.
Source: Roaf Crichton & Nicol (2006) *ADAPTING BUILDINGS AND CITIES FOR CLIMATE CHANGE: A 21st century survival guide*. Burlington: Architectural Press

3. **Conclusions: A recommendations for urban development regulation, their significance and implications for planning in Serbia**

In order to make the state intervention in urban planning successful, the identification and investigation of problems in the context of climate change is necessary. The recognition the spatial pattern and manifestation of the problem is needed, as well as to identify stakeholders and their responsibilities in the construction, preservation, maintenance and control of natural and created structures. Creative solving problems should be related to the area by establishing precise boundaries - zones, and linked with the values and goals that affect the distribution of activities, construction, preservation and maintenance of natural and created recreation areas and facilities (through a variety of criteria, indicators and parameters).

As a result, the establishing rules and suggestions for activities is expected, in order to timely respond to the forthcoming climate change (includes answers to which stakeholders would take part in investment and control, and when). Also, the rules are expected, regarding the land use and construction of facilities (buildings, the sizes of lots, parking and supply facilities, location and construction of regulation lines, volume of objects, the position of objects on the land and their relation to the water surfaces, the relationship to adjacent structures, parameters of forming building structures, ...). Building standards are also expected (materials for the construction and finishing, color and texture, lighting, landscaping the surrounding area...). The final task is to make practical and technical guidance in the form of illustrations – sketches for its users.



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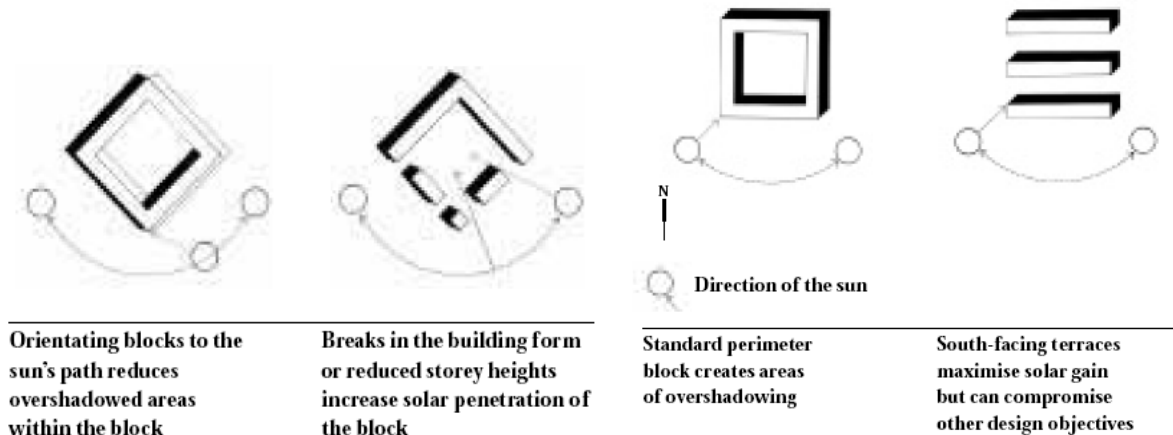


Fig. 10: Dimensions and the block orientation, with the aim of optimal isolation and ventilation Source: *Better Places to Live: Creating a movement framework* <http://www.communities.gov.uk/publications/planningandbuilding/betterplaces>

Expected outcomes are in the form of defined action plan, with a precise scheme (timeline) in defining measures for adaptation and protection of areas, assessing and preventing the consequences of climate change. Cooperation between stakeholders in technology transfer, research and information exchange is expected as well.

It is also necessary to presume the types and frequency of activity and its allocation (graph): (accommodation of existing facilities and activities, the terrain, adjusting the soil and water, economic parameters, rules and standards, bioclimatic principles).

In the front line in our battle for survival must be a new generation of resilient buildings, which would use as little energy as possible through good design, provide that energy where possible, from clean, renewable sources that will not pollute nor run out. Defining the rules of construction is needed (the type and distribution of vegetation, orientation, the materialization, regulation, lots, leveling and grouping objects according to bioclimatic principles). The main aims in building refurbishment because of climate change mitigation and adaptation are:

1. To reduce waste in construction, operation and demolition.
2. To be built with goods and materials that produce minimal pollution.
3. Not to destroy fragile biodiversity and ecosystems.



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4. To apply changes in the consumption mode and supplying electric energy (heating and cooling modes, the geometry of objects, the composition of mantle-envelope objects, etc.)
5. To ensure that people are comfortable, and can survive even in extreme weather within them.

We see non-resilient buildings and settlements all around us that are vulnerable to climate change. Many are already uninsurable, like the hundreds of flood-blighted areas in Serbia, or those already falling prey to the receding river coastlines in 2005. In many homes and offices is simply too hot to sleep, which leads to the increase in climate-related hazards. Those are the problems which will have to be treated properly and solved for a longer time period.

4. Acknowledgement

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5. References:

- [1] Bracken, I. (1981) *Urban Planning Methods: Research And Policy Analysis*. Abingdon: Routledge Library Editions
- [2] Dryzek, J (1997) *The Politics of Earth*. Oxford: Oxford University Press
- [3] EU Commission (2007) *Adapting to Climate Change in Europe*
- [4] HB Lanarc planning and design company presentation
http://www.hblanarc.ca/projects/project_details.asp?ProjectID=40
- [5] Gidens, A. (2008) *The Politics of Climate Change*. Cambridge: Polity Press
- [6] IPCC report AR4 (2007) http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml
- [7] John Mardaljevich, Institute for energy and Sustainable Development, De Monfort University, Denmark.
www.iesd.dmu.ac.dk
- [8] Jovanović, S, Savić, S & Despotović, M (2004) *Promene nekih klimatskih parametara u urbanim sredinama Republike Srbije*. Kragujevac: Mašinski fakultet
- [9] Roaf, Crichton & Nicol (2006) *ADAPTING BUILDINGS AND CITIES FOR CLIMATE CHANGE: A 21st century survival guide*. Burlington: Architectural Press



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ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 1, Issue 3, 2012

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

- [10] Serbian agency for Spatial Development (2010) The Draft of Spatial Plan of the Republic of Serbia 2014 -2021
- [11] Simic, I: URBAN BATTERIES - The energy potential of small urban and rural settlements in the region of Vojvodina, IAS-STS Conference 2011, Graz
- [12] Stern, N. (2008) Key Elements of a Global Deal on Climate Change. London: London School of Economy
- [13] Stiglitz, J. (2004) Ekonomija javnog sektora. Beograd: Ekonomski fakultet
- [14] UNEP (1994) The United Nations Framework Convention on Climate Change (UNFCCC)
- [15] Vujošević, M. (2004) Racionalnost, legitimitet i implementacija planskih odluka – novije teorijske interpretacijama i pouke za planiranje u Srbiji. Beograd: IAUS



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Economy Development: Benchlearning

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Abstract

Benchlearning like new method integrates efficient methods and human development at a time when such integration is recognized as increasingly vital to organizational success. It:

-offers practical inspiration on improving quantitative goals

-company performance and competitiveness-by influencing the attitudes of people within the organization

-provides a new method combining the qualities of both the learning organization and knowledge management

-shows how this concept can be applied using case studies and illustrations and the result of pilot project

-describes practical perspectives and tools on management and learning theory.

This work will be invaluable to senior and middle managers, consultants and practitioners and MBA students, as well all those working within organizations that are keen to improve and develop their performance.

The aim is to produce a business strategy which will make organizations work more efficiently.

Different aspects of 'the economics of learning' have been the main content research.

This work answers the question 'how do you know that your operation is efficient?' Benchlearning show that it is possible to move on from pure comparison to benefit from the knowledge and experience of others and create a real learning organization. Examples from a range of organizations including Ericsson show how to monitor efficiency, provide inspiration for a development drive, and illustrate how to influence people's experience, in combination with the principles of organizational learning.

Benchlearning principles can be applied to almost any group or company to promote a win-win-win situation: employees' performance improves as they learn to develop, customers gain more value and choice, and owners benefit from a more competitive organization.

Keywords: *development, benchlearning, consultants*

JEL Codes: F63, D 83



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1. Introduction

The fundamentals of learning and how benchlearning fits into the context:

- understanding: benchlearning leads to it
- competence of economic value: what benchlearning aims at
- tacit knowledge: benchlearning is a concept for transferring not only calibrated key indicators and pre-codified data but also tacit knowledge, which is harder to access
 - transformations between tacit and codified knowledge: benchlearning creates a learning environment in which both 'sender' and 'receiver' are forced to make their insights explicit and create the interactions that accelerate achievement of awareness
 - models and diagrams: benchlearning leads to understanding of other people's models; this can prompt revision of ideas about the logic of one's own business
 - objectivisation: benchlearning accelerates this process
 - models: benchlearning offers a method that enables us to reappraise faulty or obsolete models and 'update' our perception of reality
 - group-based learning: benchlearning provides opportunities for throwing light on the business from several angles and reinforces cohesion in the group
 - absorptive capacity: the group's analysis of the problem and its choice of good example lay a firm foundation for absorptive capacity
 - complexity: benchlearning furnishes the vaulter with a pole without whose help he could never attain the necessary height
 - faster processes: benchlearning accelerates learning
 - strategy: benchlearning trains strategic thinking ability in those levels of the company where it is most needed
 - social competence: benchlearning develops social competence, both through interaction with the good example and within the group itself.

What requirements should modern corporate education satisfy? I shall now formulate some of the requirements that can reasonably be expected of a modern method for corporate development and learning, and discuss how benchlearning relates to requirements and how it fits in with existing theories of occupational learning.



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2. Integration of Learning and Efficiency

We have called benchlearning a concept for corporate development and knowledge formation. By doing so we want to make the point that any concept for occupational or corporate learning must have efficiency as its aim and must be in line with the overall aims of the company or organisation. We further maintain that development of the company that is to be sustainable in the long term must be based on knowledge formation. The problem with many approaches is that they fail to combine these aspects. In the field of business administration, as we mentioned in the introduction to this work, the realisation that knowledge formation and learning are crucial to corporate development is relatively recent. In addition, business administration approaches to learning have often operated on a highly aggregated and thus abstract level. Theorists have often viewed organisations as the learning subjects and have thus been unable to convincingly link their ideas to the finding of educational science or cognitive psychology. And those who specialise in developing ideas about learning have seldom come from disciplines or backgrounds that require concepts like efficiency and competitiveness to be incorporated into empirical or theoretical work.

Any attempt to devise an approach to learning without integrating it with a company's demand for efficiency, however well-meaning, is doomed to failure. We are thus faced with a need to integrate efficiency with learning, as well as to integrate the individual's need to develop with the company's overall aims.

Benchlearning offers a way to integrate these factors. There are, as we mentioned earlier, other methods that try to place learning in a perspective of efficiency, but they are far too few and exist at present only as theories. By developing the benchlearning concept we also want to stimulate discussion and development of other ideas which seek to achieve integration of learning and efficiency.

3. Faster Learning

A modern development concept must be capable of accelerating learning and handling a growing degree of complexity.

That requirement could be formulated as a number of sub-requirements:

- to furnish the company/group with a tool enabling it to use prior knowledge as a lever for new knowledge formation
- to offer guidance and serve as a compass to indicate the direction in which new knowledge should be sought



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- to raise the company's aspirations to a high yet realistic level
- to promote better understanding of one's own business and its logic and context.

The concept is based on what is perhaps the most important kind of knowledge formation, the proposition that utilisation of prior knowledge is the starting point for producing new knowledge, finding solutions to new problems, developing a new product, and so on.

The instructive power of good examples likewise guides the search for knowledge in a given direction. The desire to use the best practice in a given field as a source of inspiration and point of comparison not only provides input for the effective transfer of knowledge but is also a method that influences the level of aspiration: 'If they can do it, why can't we?' The fact that the source of inspiration to which one turns has actually run an operation that works in both theory and practice naturally enhances the value of the information obtained from that source.

Application of the instructive power of good examples has the further advantage that those who are seeking to improve their efficiency have *absorptive capacity* in the area of knowledge to be transferred. They have experience, they have worked on the same problems themselves, and they know is needed to make further progress. Here, too, the concept agrees with research in the field.

The principle of 'seeing ourselves in others' can also be applied to corporate development and knowledge formation.

To return to modern theories of education and cognitive psychology, our contention is that benchlearning enables us to *objectivise* our own business. The existence of several objects provides input for gaining new perspectives on our own business. From that position we can formulate a number of hypotheses about our business, and then convert them into *plans of action* to improve our operations. The opportunity that benchlearning offers to objectivise our business this way and to establish a greater number of interactions between our own understanding and the world around us *accelerates the learning process*.

Benchlearning is thus strategy that aims at giving people a greater understanding of the relationships and logic that influence their daily work. Another important point here is that benchlearning also tries to identify the *mental models* which influence and perhaps even control the actions of our good examples. Without that, we risk trying to study behaviour in isolation while ignoring the reasons for such behaviour. By studying our examples 'mental models, on the other hand, we achieve understanding and with it the ability to use our benchlearning partners' experience creatively.

Benchlearning solves yet another problem which seems to be intimately associated with a turbulent economy - the lack of natural opportunities to reflect on and evaluate one's own business – when the focus is on quick and specific learning, or *just-in-time learning*.



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The opportunities that a benchlearning project provides for reflection may also explain the frequently observed phenomenon in benchmarking that it is easy to recruit those seen as good examples as partners in such projects. It is the opposite that is difficult – that is, getting less advanced companies to agree to such a project. One possible explanation for this is that the good company has attained its position because it has always focused its attention on the world around it and not on its own problems. The self-confidence inspired by the appreciation of one's peers also undoubtedly plays a part, as does the prestige of being held up as a good example. But on top of that, even the good example has a need to articulate and evaluate its experience, and have it illuminated by the questions put by potential partners, such as in a benchlearning project. Such a project requires them to formulate their experience for the benefit of external partners, and to do that the company must itself articulate, codify and evaluate its own experience. With the help of a consultant and partners, the good example can also acquire a deeper understanding of its own business.

4. Universal Participation

The turbulent economy makes new demands on knowledge formation among organisations and their employees. We have seen how the type of organisation based between departments and units has increasingly given way to the *ad hoc* kind of organisation where total responsibility for a project placed in the hands of a group. Information management is being decentralised, even as management has acquired better means of central control. In many cases this may be seen as a necessary condition for delegation of information management and decision-making responsibility to those people within the organisation who actually have to get the job done.

These changes have focused an unprecedented amount of attention on the individual employee and the smallest production unit. The supervisors and middle managers who previously made decisions about what to do, how to do it and when to do it have been largely eliminated. In a turbulent economy a company cannot afford the time it takes for a problem or decision to filter through the hierarchy and risk being delayed on the way. To avoid unnecessary delay, the problem, and decisions on how to deal with it, are now handled by those responsible for doing the actual work.

A further consequence of the turbulent economy is that the practice of setting up a strategic planning system at top management level is no longer used. If the future is difficult to predict, a long-term strategy is impossible to implement. A better option is to develop the company's adaptability and flexibility. But that does not remove the necessity for the various units of the company to formulate plans of action for their own operations. In one way or another, people are forced to make a series of decisions about a future which they cannot foresee. It is therefore important that the company's employees and working groups are trained in strategic thinking. Benchlearning provides opportunities for doing that.



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There are also other factors behind these developments. The increasing emphasis on quality means that the individual employee must be enabled to develop their own competence and to take responsibility for their own work. In addition, the pressure for efficiency generated by increasing competition and demands for transparency means that ancillary costs such as production and quality control must be integrated with, not isolated from, the work process. This further stresses the relevance of the adage that 'no chain is stronger than its weakest link'.

But this also means that the process of development, including the strategic aspects that apply to the group or project, can be efficient only if everybody concerned participates in the effort. This probably also something which appeals to the members of the group and reinforces their sense of security and common purpose.

In the matter of comparisons with good examples, there is a further motive for placing responsibility for the development project in the team's own hands. A process of development based on comparison with an advanced example may create misgivings about its purpose. If it is 'proved' that somebody out there has solved this problem better than we have, that can be used in in-house discussion as a stick with which to beat the unit concerned, which will therefore do all it can to avoid getting involved in such processes. But if the group itself is in control of the project, that not only inspires confidence but also a knowledge-seeking attitude which guarantees that the company will have an absorptive capacity that can understand, evaluate and use the information which it acquires. It is very hard for those who are not in daily contact with an operation to judge from outside how the partner's experience can be evaluated and used by those who bear the operative responsibility in their own company.

Putting the group in charge of its own project is also important as an aid to learning. Learning means that the people involved acquire a better understanding of their work. An individual who has done that is more autonomous. It is thus important that an individual's influence over their job should match the new autonomy, and that the organisation should allow the individual and the group to experiment so as avoid placing needless obstacles in the way of learning by inhibiting opportunities for interaction between individuals, actions and results.

Benchlearning further encourages the development of an extroverted, inquisitive organisation. The realisation that there are always good examples to be found is incompatible with smugness and a self-glorifying style of management. To be capable of benefiting from externally generated knowledge, an organisation must instead cultivate a corporate culture that is analytical and open. Groups whose membership is variegated in terms of experience, sex and ethnicity enjoy an advantage over homogeneous groups when it comes to taking the broad view and identifying interesting opportunities for development.



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Even if it is the group that owns a benchlearning project, that does not make the role of the corporate management any less important. Managers, for the most part, set the rules within the company and set their stamp on corporate culture. The individual, for the sake of their own development and involvement, needs to be given new varied assignments to tackle. Managers' attitudes to regular job-swapping and job rotation are very important in this respect. Does the company offer attractive career opportunities? Does it offer tangible rewards to those try to learn new skills and improve themselves? Does it encourage collaboration or internal competition? Does it organise regular appraisal interviews individual employees and, if so, how are they followed up? Are there opportunities for refresher training for employees who want to update their knowledge and thereby enhance the company's ability to learn and use new technology and methods? Those are just some of the questions that managers should consider if they want to encourage the personal development of their employees.

5. Benchlearning - A Synthetic, Integrating Approach

In the current discussion of corporate development and knowledge formation, it is popular to trumpet highly simplified, one-dimensional messages. Many concepts are touted as the new and only road to salvation. There is of course a risk that bench-learning may be regarded as just another these fads. But because benchlearning uses knowledge that already exists, we maintain that benchlearning is a synthetic, integrating approach which – like all other concepts – has important elements in common with other theories.

Equally evident are mutual give-and-take and co-existence with a number of other theories, both those that we have mentioned here and others. They include benchmarking, balanced scorecard, continual improvement, knowledge management, action research, democratic dialogue, lessons learned, peer groups and network theories of a more general nature. Which theory or technique a company should use depends on many factors, primarily the *type* of problem it is trying to solve. If it wants to enable employees at their computer screens to click their way to useful hints, then the 'best practice' area of 'knowledge management' is an appropriate choice. A democratic dialogue conference may be a good way to collect items of experience relevant to a given field on a broad basis without preselection. Benchlearning is appropriate in cases where the aim is to verify whether the company is 'on course' with regard to current developments, or to encourage the ability of employees to learn and grow.

Benchlearning has a legacy from benchmarking in that it looks to good examples. But unlike traditional benchmarking, benchlearning is not primarily based on comparisons of calibrated key indicators but reaches out farther by seeking a dialogue with the good example to learn from its 'tacit knowledge', to objectivise its own operations and to revise its own mental models of the logic of those operations. To return to the simile



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of the vicar viewing the churches in the city from a hill-top, we can say that benchmarking is like comparing the exterior dimensions the churches and the heights of their domes.

The learning and understanding aspects are what distinguish benchlearning from knowledge management, which – at least up to now – has been mainly concerned with retrieving information from database compilations or recorded case studies of best practice.

Like democratic dialogue and many networking schemes, benchlearning aims to achieve broad involvement and participation in the development process, to utilise other people's experience. In this respect benchlearning focuses clearly on one or more good examples who are known to be able to report excellent practice in some area of interest. The process of picking good examples is a key step in benchlearning, because it guarantees that the information communicated in the networks is of substantial economic value. We are fully aware that establishing networks is not an easy or quick process for any of the parties concerned. It takes resources both to establish and to maintain a network. Networks can promote development but, as research has proved, they can also promote secrecy. The question of whether a network makes a positive contribution to economic development or democracy seems therefore to be primarily a matter of the quality of the network and the content of what is communicated. Benchlearning offers a means of guaranteeing as far as possible that the content of the communication is valuable. The good example with whom one conducts the dialogue need not be world class, but must be good enough in comparison to the receiver that objectification generates a positive tension and an ambitious plan of action.

6. Benchlearning as a Attitude

What, then, do the exploding volume of data and information, the ever-faster turnover of knowledge and the ever-more-pressing shortage of time signify in terms of our attitude to using 'stored knowledge'?

One possible conclusion is that searching 'stored know-ledge' for a clue to solving our own problem is likely to become a better option than trying to solve the problem on our own. To this the objection may be raised that ever-increasing pressure of time makes it harder to 'go the long way round' via stored knowledge: finding one's own solution may be a more expensive way to solve the problem, but it is quicker. If time is of the essence, it may be better to get the answer almost right, rather than getting an ideal solution that takes too long to find.



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7. Conclusions

The learning and understanding aspects are what distinguish benchlearning from knowledge management, which – at least up to now – has been mainly concerned with retrieving information from database compilations or recorded case studies of best practice. Also, experience plays a key part in benchlearning.

8. References

- [1] Glušica, Z. (2005). Implementacija sistema ekološkog menadžmenta ISO 14001:2004, Novi Sad, Mobes
- [2] Karlof B., Kurt L. and Froment, M.E. (2001). Benchlearning - Good Examples as a Lever for development, Chichester, John Wiley&Sons, LTD, England
- [3] Karlof, B. (1998). Going for Excellence - Achieving Results Through Efficiency, London, The Institute of Chartered Accountants in England and Wales
- [4] Malobabić, M. (2007). Razvoj modela integrisanog menadžmenta kvalitetom, životnom sredinom i bezbednošću informacija u JP informatičke delatnosti grada Novog Sada (doktorska teza), Novi Sad
- [5] Malobabić, V. (2007). *Benchlearning Metod u JP i JKP Vojvodine*, Novi Sad, Prosveta



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Social Responsible Marketing – Yesterday and Today

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Abstract

Several factors direct the companies to apply a higher level of corporate social responsibility: the increasing expectations of customers, changes in expectations of employees, laws and government pressure, investor interest in the social criteria and changes in supply practices

The basic principles of socially responsible marketing as an ethical business, respect for ecological principles and respect for the legislation. Organizations must ensure that all employees know and observe the relevant laws.



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Companies must adopt and make available to the written rules of ethics, to develop tradition of ethical conduct in the company and impose a responsibility to his men to follow ethical and legal guidelines.

By adopting these or similar principles, companies can create opportunities to reduce current and future costs, strengthen competitiveness and market position and achieving greater profits.

In contemporary business, more ecological component is present in the execution of business activities as an important prerequisite for improving competitive advantage and company image. Awareness of the issue of environmental protection in companies has evolved primarily as a result of the influence of customers and various non-governmental and non-profit organizations on marketing orientation of companies, and the requirements for the development of products and services that meet environmental standards and consumer needs.

Keywords: socially responsible marketing, ethical business, ecological principles

JEL Codes: M31, M14, Q57

1. Introduction

To exercise a success in business, with continuous customer satisfaction and all stakeholders, can be associated with acceptance and implementation of high standards of relationship marketing. In order to achieve business goals and success in the marketplace, that have been set, companies must imperatively practice ethically and socially responsible marketing. Ethics has become a key element of the interaction between the company and its stakeholders.

Corporate social responsibility means that the corporation build's up and fosters its position on ethical values and acceptable to the entire community in which the corporation exists, including its financial and organizational capacity to practically implement its desired action.

This paper deals with the concept of corporate social responsibility, historical and contemporary, concepts of relationship marketing and socially responsible marketing.

2. Concept of a Socially Responsible Business

2.1. The emergence of the concept of corporate social responsibility

In the last century, the late eighties, a concept of corporate social responsibility - CSR (Corporate Social Responsibility) has been created. This business concept means that companies voluntarily participate in their own business and in relationships with partners, concerns about social and environmental aspects of its operations. (Declaration of the European Union).



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Socially responsible business enterprise reflects its level of development and quality of life in the local, but also in a wider community, through active participation of the enterprise in solving problems of its employees, economy, energy and environmental problems at the community level. Environmental protection is one of the primary concerns of an enterprise in its business on the market. By making efforts to preserve the natural environment businesses can reduce the negative impact on the environment on a possible minimal extent

One might ask, what is the purpose of business organizations? Is it focused solely on maximizing profits to its shareholders, or the company may have a greater responsibility to assist in solving of social problems?

In the seventies there was a lot of discussing about the three types of social responsibility. First, there was a discussion about how business people should behave on the job. Do you need to have moral standards - principles - that they have in their private lives? One issue that has often been debated is, whether the director should bribe a person in order to ensure a contract, in case he knows that his competitors are likely to do the same. Second, there was a discussion about the social responsibility of firms according to their own workers. Interest was focused on how organizations can make improvements of working conditions for their employees. Finally, social responsibility included the idea that business people should contribute to cultural activities or to support activities such as music festivals and art exhibitions. Since managers are also expected to serve in a educational committee, Hospital administrative cost projects, etc.. In other words, they had to actively participate in the life of their communities.

Corporate Social Responsibility by Philip Kotler and Nancy Lee, represents a commitment to improve communities well-being through discretionary business practices and contribute to the account of corporate resources. A key element of this definition is the word discretion. It is not about business activities that are required by the law or by their moral or ethical nature that is expected as such. It is a voluntary, unsolicited activity of a firm and its decision to select and apply the practice of a business and to make contributions. This commitment must be demonstrated so that the companies could be called socially responsible, and that is implemented through adoption of new business practices and contributions, both cash and in-kind. Term benefit of the community in this definition implies conditions of the people in the community itself, and of course, environmental issues.

2.2. New ways in addressing social responsibility

Nowadays there is a new approach in the consideration of social responsibility. Many believe that companies, in addition to their own, should meet the needs and interests of society. They have a responsibility to assist in solving problems in society itself. This new concept has influenced the growth of society's expectations in relation to business organizations. For example, continuing to put pressure on



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organizations to provide safer and more secure environment for people. Because of some companies, such as chemical industries, it is expected to not only meet the states standards in terms of pollution, but it also must take steps in reducing pollution as much as possible even at the cost of reduced profits.

In a modern society, the companies are expected to show they are socially responsible in many ways. They are encouraged to produce safer products, to protect and respect the environment, to recruit people from minorities, create jobs for unemployed young people, to oppose racial discrimination and to maintain a high degree of integrity in the process.

Banking has the best example of this new approach. The once famous British bank is under pressure to cease its operations in South Africa because many of their clients were opposing South Africa's Apartheid politics.

A new concept of social responsibility means that companies and business people alike must have integrity. They have to be honest with their workers and the outer world. Successful companies are very vulnerable in the event when their integrity is put into question. Their reactions are often severe and they include extensive media coverage.

Many business people agree with this broader concept of social responsibility. They also agree that companies should help in solving social problems, even when their company is not the cause of these problems.

But there are those who are against this approach. Thus, an American economist and Nobel laureate Milton Friedman believes that firms have only one responsibility and that is to "pool their resources and energy in activities that aim to increase profits as long as they keep within the rules of the game ... and to engage in open and free competition without any form of deception and fraud." Friedman claims that the social responsibility of companies is to "make as much money for their shareholders as possible." Another famous person from the world of business has a similar attitude. Jan McGregor (Ian MacGregor), former CEO and chairman of the managing boards of large British companies said that the first priority for companies is to create wealth. Many companies, in his opinion, have the concept of social responsibility which deters them from what their main task is.

It is a fact that social actions cost a lot of money, and because of that a company that finances them often raises prices of their products because of that, or they reduce wages of its workers or earns less profit. Someone eventually has to pay the costs of social actions - this could be a customer, an employee or a shareholder.

Of course, companies can also benefit from demonstration of social responsibility in the long run. Important social and cost-effective projects which the leading companies are involved in provide equipment for the university, seminars and project-related informational technology, and training programs at universities and colleges, and seminars on career development, sponsorship of art and sports competitions. Sometimes social activities are a part of the company's business strategy. This is not about will the charity be



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worth mentioning only briefly in the company's annual report. Large companies often have contracts with state structures and other social groups. Employment of expert and highly educated work force so is in the best interest of the company, and because of that its social programs is equally important to its overall success. There is no doubt that, in the long run, these activities will be extremely profitable for the organization itself.

In the literature one can find the statement that started the practice of social responsibility as a means of managing the risk in large multinational companies, who were exposed to attacks because of its policies toward the environment or personnel. For these reasons they have adopted a proactive behaviour or practice that is in advance committed towards sensitivity of the environment and communities in which they operate. The essence of corporate social responsibility is that it is in relation to the environment and society that goes beyond what is required by law. It is also important to establish a real dialogue and cooperation between enterprises and organizations in the non-profit sector.

Any job, either big or small, is not separated from the society in which it operates. Success or failure of the one is largely determined by the success or failure of the other. People are really interested in the way the company treats them, and also in the environment and society in general. However, it is not enough to formally announce their commitment, in addition to the formal announcement, presentation of the commitment is necessary in order to show that it is real and that it brings real results, including identification of those procedures and actions that can bring benefits to the principal activity of enterprises and society as a whole.

The reasons for the introduction of CSR are ethical (moral standards), sustainability (it makes sense when the application has economically justified measures - reducing energy consumption and less waste, but it is harder to justify it in other cases - corruption, transparency), working license (represents a means to cope with issues important to the shareholders, to encourage dialogue with the public, legislators, etc.).

Directly related to the concept of corporate social responsibility is the civil society and non-profit sector. Providing of sufficient funds, grants, donations, scholarships for activists and users, is one of the crucial aspects of the performance and survival of any non-profit organization. Sources of funds for the general benefit of society through non-governmental organizations are provided thanks to socially responsible companies. Although in some cases we may rightly ask is it altruism and social responsibility or it is a cleverly devised marketing strategy.¹

¹ Radnović B., Ilić M, Živković Z, Corporate Social Responsibility and the nonprofit sector - a unethical marketing strategy or genuine concern, 3rd International Conference of Economic Sciences, Kaposvar 2011.



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2.3. Standard ISO 26000:2010 and SRPS ISO 26000

At the end of 2010 a long-awaited international standard ISO 26000:2010 social responsibility - Instructions on social responsibility has been adopted. Serbian response is the national standard SRPS ISO 26000:2011. This standard is a comprehensive and practical way to assist all organizations, regardless of their size and activity, to discover in which area and in what way they can achieve improvement in social responsibility. The standard is designed in a way to serve - organizations that are relatively new in dealing with social responsibility, as well as organizations that have achieved a high level of maturity on this issue.

Standard ISO 26000:2010 contains the following chapters:

- Subject and area of application,
- Terms and definitions,
- Understanding of the social responsibility,
- Principles of social responsibility,
- Recognition of social responsibility and stakeholder engagement,
- Instructions on the key issues of social responsibility,
- Instructions on integrating social responsibility into the organization.

Chapter 3 is of particular importance for small organizations because it includes instructions for using the standards in small and medium-sized organizations. Throughout this chapter is described a concept of social responsibility - what it means and how it applies to the organization.

Chapter 4 explains the basic principles of social responsibility: accountability, transparency, ethical behaviour, respecting of the stakeholders interests, respecting the rule of law, respecting for international norms of conduct, respecting of human rights.

Chapter 5 provides instructions of the relationship between the organization, its stakeholders and society, recognizing the fundamental issues and questions of social responsibility and the sphere of influence of the organizations.

Chapter 6 explains the key topics relating to social responsibility: management of the organization, human rights, labour practices, environment, fair business, issues and consumer involvement in the community and its development.

Chapter 7 provides guidance on the practical application of social responsibility in the organization



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When it comes to social responsibility in Serbia, Standard SRPS ISO 26000, which represents guidance for the basic principles of socially responsible behavior of companies and organizations represented in the Serbian Chamber of Commerce. The recently published standard is the same as the international standard ISO 26000 in fact it is its translation into Serbian. SRPS ISO 26000, are guidelines for developing awareness of socially responsible behavior of companies and organizations. This standard may apply for the companies and organizations of any kind, and it provides a competitive advantages and sustainable development.

The goal of social responsibility contributes to sustainable development. ISO 26000 was published in late 2010. in Geneva, and SRPS ISO 26000 was published six months later.

3. Marketing Concept of Social Responsibility

3.1. Marketing as a necessity

Marketing orientation is not only desirable but is also necessary in the service industry businesses. There is little prospect of lasting business success if there is no monopoly on the market itself, or if the business activities in the domestic and international markets are not marketing-oriented. In developing strategies of service businesses it is necessary to have information about the state of the environment and a realistic assessment of the company. A successful marketing strategy is one that allows you to create consumer interest in services companies, so that it comes to sales, and also to secure new sales.²

The main goal of marketing is increasingly becoming a development of close and long-term relationships with individuals and organizations that can influence the success of marketing activities of companies. Relational marketing approach recognizes the importance of different stakeholders to deliver the best value for the consumer. The ultimate result of relational marketing is to build unique marketing networks, composed of the company and its stakeholders with which the company builds profitable relationships.³

Marketing brings a new style of work in the business, creates new obligations, shows discipline in executing the plan and it is committed to the development of comprehensive cooperation and coordination of all participants in the business process.⁴

² Todorović, J., M. Milisavljević, "Marketing strategy", Faculty of Economics, Belgrade, 1991.

³ Filipović V, Kostić M, "Marketing - Theory and Practice", FON, Belgrade, 2005.

⁴ Filipović V., Kostić - Stanković M., Marketing Management, FON, Belgrade, 2007.



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The views of stakeholders are involved in marketing through the marketing orientation, relational marketing, brand management, public relations and marketing communications. In the concept of corporate marketing, stakeholders are viewed not only as buyers of products and services, but as factors under which the concept of marketing mix is extended and adjusted by. Corporate marketing orientation aims to create value beyond profit maximization and to take care of social needs and expectations, including the stakeholders. Thus, one of the most important elements of corporate marketing, from the perspective of social responsibility, is the social interaction.

Marketing is a modern scientific discipline, which is the result of natural processes and lawful business orientation caused by the evolution of economic entities in market economies.

Marketing is a term that has different meanings:

- Business concept;
- Business Function;
- Economic process;
- Business System;
- Scientific discipline.

Marketing as a business concept represents companies active attitude towards the market-market orientation in terms of marketing as a business philosophy, which means that the business orientation of economic entities towards the market. It is based on pre-viewed needs of the consumers and, on that basis, their satisfaction with the specific value of the use itself, with the achievement of planned business results. Pre-perceived needs of consumers represent the starting and the final link in the chain of formulating marketing concept in business enterprises.

Marketing as a business function involves researching, identifying and analyzing the needs and demands of consumers, in order to respond to them with adequate range of products and services, in the right place at the right time, for the appropriate prices (which consumers are willing to pay). That is the function of marketing management - planning includes all activities and organizational directional offers from producers⁶ to consumers. Marketing as a business concept provides an active position in the enterprise market.

Marketing as a business concept includes a stance of the company toward its role in the economy and society and the "means of identification aimed at meeting the needs of citizens as consumers, and also the economy and society in certain products and services to get the realization it needs"⁵. This concept is based

⁵ Milisavljević M., Marketing, Modern Administration, Belgrade, 2003.



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on the knowledge that in the economy where the market has a decisive role, the fate and livelihood of an enterprise depends on it. Therefore, all activities must have their origin in the needs, demands of customers, but also in their difficulties and problems. Bearing in mind the aforesaid, it is often that the marketing concept is called **market orientation** in the literature. Orientation does not mean just the existing business (won), but as well as penetration into new markets.

Marketing as a business concept suggests a specific way of planning, setting and realizing business opportunities of companies. " The specificity of thought and operational approach is reflected in, above all, in the means that marketing is **active (offensive)**, and in practice today is often encountered and **aggressive** approach to all forms of economic life, especially in the business activities of enterprises'.⁶

The modern concept of marketing requires and demands application integration, synchronization and coordination of activities related to companies. All marketing activities should contribute to economic efficiency and meet consumer needs, economy and society. From what is stated above, we inferred that such management and marketing management organization, provides an adequate evaluation of the symbiosis of market, economic and broader social interests. Also, the very essence of marketing is its timely ability to adapt to the changes and demands of society and markets. Due to that positive fact, marketing is considered one of the instruments suitable for the implementation of necessary structural changes.

The goal of business-oriented marketing firms is representing the needs of consumers and its adequately meeting, because that is the key to achieving the primary goals of existence, business and enterprise development. Consumer needs should primarily be identified, and examined, then to determine target markets, and then to plan production and sales program and other marketing activities. In addition, ways must and methods must be found that will ensure the efficient use of available resources in order to gain competitiveness in the market. If the company in its mission does not find ways to attract and retain customers and consumers, it will not last long. It should always be borne in mind that meeting the needs of customers and consumers is the main task and purpose of all jobs in the company.

Marketing as an economic process, has in its focus a process of exchange, and brings us into contact production and consumption, connecting them.

Marketing as a business mean a system of two aspects of observation:

- Micro systems – micro marketing

⁶ Vasiljev S, Marketing, Singidunum, Belgrade, 2004.



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- Macro systems - macro marketing

Micromarketing is a micro system is, a subsystem of the organization as a system, and Macro marketing is an activity at the level of society, and the economy of a country.

Marketing as a scientific discipline is interdisciplinary, descriptive discipline that treats the phenomena related to the market. It has its own concepts and methods. In line with this, certain authors argue that marketing is a relatively new field of academic study and lacks theoretical basis that lacks diversity in provided areas such as economics, sociology and psychology. However, marketing theorists have tried to develop an independent marketing theory, as well as applying ancient theories in solving marketing problems.⁷

3.2. Relationship marketing and socially responsible marketing

The growth impact of relational marketing has been rapid. Relational marketing has found a ready acceptance throughout the world, because it has become apparent that a strategic competitive advantage can be provided only on the basis of product characteristics and that the profits of corporations is linked with customer satisfaction. In industrial marketing, marketing services, marketing and product management, distribution channels have passed their path of development from marketing of anonymous masses of consumers, through marketing relationships with more or less familiarity to consumers and other stakeholders, in other words consumers who can be identified.⁸

Stages in the development of business concepts are: product orientation, the orientation of the product, sales and commercial orientation and marketing orientation, which is now divided into customer-orientation, orientation to the community and relational marketing.

There are several definitions of relationship (relational) marketing, according to which relationship marketing is "attracting, retaining and improving relationships with customers" (Berry 1983); marketing Relationship focuses on the development of long-term relationships with customers and other involved parties (Grönroos 1990), the purpose of Relationship Marketing is to establish, develop and enhance ... relationships with customers and other partners at a profit, in order to fulfil the objectives of the partners involved. This is achieved by mutual exchange and fulfilment of promises (Grönroos1996). Relationship marketing is also called marketing of relations, in particular literature, we find the term "retention

⁷ Marie E. Murgolo-Poore, Leyland F. Pitt and Pierre R. Berthon, Three Theoretical Perspectives on One of Marketing's Most Fundamental Exchanges: Propositions on Personal Relationships, *Marketing Theory* 2003; 3; 235

⁸ Egan J., Back to the Future: Divergence in Relationship Marketing Research, *Marketing Theory*, 2003.



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marketing". Relationship marketing redefines marketing as an investment for the future.⁹ In relational marketing, marketing efforts have been directed to carefully selected customers, whether it comes to an individual or groups, which adapt the product or service, but their interaction with all other participants is used to create and deliver a new, increased value.¹⁰

Market Model Six (The Six Markets model) refers to the relational marketing at the organizational level. It is understood that the role of the six markets, each of which represents a dimension of relational marketing, creates relationships with certain parties - organizations or individuals that can potentially contribute to, directly or indirectly on the effectiveness of the organization's positioning in the market. These domains were originally represented by the middle of the company which is regarded as the internal market, highlighting the role of internal marketing as an integrator and facilitator, which supports the management of relationships with other parties under other markets.¹¹ Today, the consumer market is placed in the centre. Putting consumers at the centre of Six Markets model focuses on the purpose of relational marketing, creating value for consumers, satisfaction and loyalty, with the goal to increase profitability in the long run.

In relational (relationship) marketing, marketing efforts have been directed to carefully selected customers, whether it comes to an individual or groups, which adapt the product or service, but their interaction with all other participants is used to create and deliver a new, increased value.

Today, in the modern theory and practice there is an increasing discussion about the modern approach to marketing based on an interactional network, where marketing activities spread throughout the organization or outside of marketing. Marketing objectives, given its importance, become much more important objectives for the enterprises and organizations as a whole. This contributes to the development of total awareness of all employees in the company as well as importance of focusing on consumers and competition.¹²

Thus, relational marketing is the highest level of development of marketing orientation, in other words the main task of relational marketing, is the guidance to build the optimal level of relations both with customers and with other groups that make up the micro-environment of the particular business system

⁹ Woodcock N., Stone M., Machtynger L., "Customer relationship Marketing: Get to know your Customers and win their loyalty", Kogan Page, 2002.

¹⁰ Radnović B, Ilić M, "Customer relationship management CRM software solutions and market-oriented enterprises", Proceedings of E-commerce 2008, Palic, 2008.

¹¹ Payne Adriane, Martin Christopher, Moira Clark, Helen Peck, Relationship Marketing for competitive advantage winning and keeping customers", Butterworth-Heinemann, 1999.

¹² Riznić D., Marketing Strategy of soft drinks producers, author, Kragujevac, 2003.



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(suppliers, competitors, distributors and others). And which substantially determine the conditions and criteria of market economy in certain situations.

Relational marketing is an easily applicable concept for the revitalization of the marketing function and its re-assumption as the role of foundation management strategy throughout the organization.

Key requirements for the adoption of the concept of relational marketing are the following factors:¹³

- Reducing cycle time impact of marketing activities
- Modification of the access to the segmentation of a market
- Creating a preference towards products and services (individual preferences)
- Reducing the time frame for marketing research
- A different concept of marketing communications
- After Sales Communications Services
- The Customers desire to participate in decisions on prices..

The fact is that by increasing the aspects of nonmaterial relations with clients, companies that apply the relational marketing strengthen their competitive position, because intangible aspects, as opposed to tangible material such as leads, are not so easy to copy and imitate.¹⁴

In recent years, the approach in management that is based on relational marketing, relations with consumers is perceived as an asset of the company, which has brought many benefits, given the value of dedicated customers who are not sensitive to price changes, which reduced marketing costs or increased the total profits of the company.¹⁵

Exercise of success in business, with continuous customer satisfaction and all other stakeholders, is now closely associated with the acceptance and implementation of high standards in new forms of marketing that is called relationship marketing. In order to achieve the set business goals and success in the marketplace, companies need to evaluate actual practice of ethically and socially responsible marketing. Ethics has become a key element of the interaction between the company and its stakeholders. The new philosophy of the business-marketing relationship brings and points out at the importance of establishing, accepting that the maintenance and improvement of the deep relations between stakeholders, is the only path to success in the market.¹⁶

¹³ Filipović V., Kostić - Stanković M., Marketing Management, FON, Belgrade, 2007..

¹⁴ Sajeev Varki, Shirley Wong, "Consumer Involvement in Relationship Marketing of Services", Journal of Service Research 2003.

¹⁵ Woo Gon Kim, Jin Soo Han and Euehun Lee, Effects of Relationship Marketing on Repeat Purchase and Word of Mouth, Journal of Hospitality & Tourism Research 2001; 25; 272

¹⁶ Kovač-Žnideršić, R., and D. Marić. "Ethical dimensions of relationship marketing." Annals of the Faculty of Economics (2009): 147-156.



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As one of the important principles of socially responsible marketing, we can quote: business ethics, human rights and labor rights of individuals and groups in the market, respect for environmental principles in the development of new products, fight against corruption in the market economy and respect for ethical principles in the design of communication with market groups.

Some of the key benefits of adopting the concept of socially responsible marketing are the following:

- Building a successful brand - connecting brands with socially responsible behavior, positive impact on sales and customer loyalty and devotion;
- Increasing the level of employee satisfaction in the service of marketing - engaging employees in socially useful projects, in accordance with the ethical rules, is one way to attract and retain quality staff;
- An increase in initiative and innovation - developing new ideas, perspectives and experiences, pointing out the need for new products, the ability to adapt technological and social changes and the like.

Due to a high importance of an environmental component in the management of marketing, originated a concept of ecological marketing, and eco-marketing. Ecological marketing assumes a series of changes:

- Customization of the products environmental standards,
- Changes in the process of production, delivery and consumption,
- Changes in packaging,
- Modifying the strategy of promotion and communication and so on.

One of the new concepts of marketing in the corporate social responsibility is called Cause Marketing (Cause related marketing), in other words the marketing of the occasion. The causal concept of marketing is a type of marketing that connects a company's contributions to the public good, with customers who directly or indirectly participate in transactions that bring the company revenues. D. Jobber is defined as a causal marketing commercial activity in which businesses and charities enter into partnerships with one another, for the sake of marketing a brand image, product or service, or for the sake of mutual benefit.

4. Conclusion

Corporate social responsibility is a frequently used concept in a modern business practice, given that the company is greatly responsible for the events and activities of a wider social significance. In an effort to



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contribute to the solving of problems in the community in which they carry out their business, companies implement various corporate social initiatives.

Within the socially - responsible marketing the wider interests and ethical context of modern business is valued, with respect to legal and social regulation of marketing programs and activities. Modern companies in addition to meeting the needs, requirements and expectations of consumers should act towards appreciation and respect for the ethical norms and rules, and compliance with laws and regulations in order to achieve long-term results in business.

5. References

- [1] Egan J., Back to the Future: Divergence in Relationship Marketing Research, Marketing Theory, 2003.
- [2] Filipović V, Kostić M, "Marketing - Theory and Practice", FON, Belgrade, 2005.
- [3] Filipović V., Kostić - Stanković M., Marketing Management, FON, Belgrade, 2007.
- [4] Kotler P, Lee N, Corporate Social responsibility- Do it The most Good For Your Company“, John Wiley&Sons, INC, New Jersey 2005
- [5] Kovač-Žnideršić, R., and D. Marić. "Ethical dimensions of relationship marketing." Annals of the Faculty of Economics (2009): 147-156.
- [6] Marie E. Murgolo-Poore, Leyland F. Pitt and Pierre R. Berthon, Three Theoretical Perspectives on One of Marketing's Most Fundamental Exchanges: Propositions on Personal Relationships, Marketing Theory 2003; 3; 235
- [7] Milisavljević M., Marketing, Modern Administration, Belgrade, 2003.
- [8] Payne Adriane, Martin Christopher, Moira Clark, Helen Peck, Relationship Marketing for competitive advantage winning and keeping customers“, Butterworth-Heinemann, 1999.
- [9] Radnović B, Ilić M, "Customer relationship management CRM software solutions and market-oriented enterprises", Proceedings of E-commerce 2008, Palic, 2008.
- [10] Radnović B., Ilić M, Živković Z, Corporate Social Responsibility and the nonprofit sector - a unethical marketing strategy or genuine concern, 3rd International Conference of Economic Sciences, Kaposvar 2011.
- [11] Riznić D., Marketing Strategy of soft drinks producers, author, Kragujevac, 2003.
- [12] Sajeev Varki, Shirley Wong, "Consumer Involvement in Relationship Marketing of Services“, Journal of Service Research 2003.
- [13] Todorović, J., M. Milisavljević, "Marketing strategy", Faculty of Economics, Belgrade, 1991.
- [14] Vasilljev S, Marketing, Singidunum, Belgrade, 2004.
- [15] Woo Gon Kim, Jin Soo Han and Euehun Lee, Effects of Relationship Marketing on Repeat Purchase and Word of Mouth, Journal of Hospitality & Tourism Research 2001; 25; 272



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Journal of Economic Development, Environment and People

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URL: <http://jedep.spiruharet.ro>

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[16] Woodcock N., Stone M., Machtynger L., “Customer relationship Marketing: Get to know yor Customers and win their loyalty”, Kogan Page, 2002.



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Green Marketing and Sustainable Development – Experiences from Republic of Serbia

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Abstract

The world must be developed according to the needs of people, but with the obligation of sustainable development as a comprehensive process that depress all aspects of life, at all levels.

Sustainable development is about making models in a qualitative way to meet the socio-economic needs and interests of citizens, while eliminating or significantly reducing the impacts that threaten or harm the environment and natural resources.

Sustainable development of mankind leads to a sustainable society in which man has good control of the planet and responsible custodian of heritage for future generations.

Sustainable development is without a doubt, as a result of the coming dramatic changes requested in all areas of life of every individual. Changes are related to the change in our spending habits (which in itself is already hard enough) and the change of consciousness in the fields of economics, politics and society.

Companies that are self-conscious to environment with potential for business and profits, also realize a significant contribution to environmental protection. These successful companies not only sell products to its customers and thus gain profits, but in the corporate commitment to make decisions for the care of their surroundings. In contrast to conventional producers, the most successful green companies direct their customers, or in advance know what needs to be made and the buyer offers an environmentally friendly product. Green companies are ready to address concerns about the natural environment.

Green marketing is the primary segment of social marketing, because it covers the protection and preservation of the values necessary for survival, existence and development of man as a human being, reflecting the practical support the implementation of the philosophy of sustainable development of mankind. Green marketing presents important opportunities for industry and economy of the Republic of Serbia. Therefore Serbian companies must re-define the roles of business and products, as well as joint work with government agencies, consumer groups and NGOs. Serbia is becoming aware of environmental issues, but for green marketing businesses, companies, consumers and government still do not pay enough importance.

Keywords: sustainable development, green marketing, environmental protection

JEL Codes: R58, O1, M14, Q56



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1. Introduction

With the development of global industrialization and rapid population growth, problems of threat to the environment were growing, not always with responsible behavior, but also as a result of increasing needs of a growing population on the planet.

At the end of the fifties began to rise and concern for this state of the planet, so the strength has been directed to the adoption of various measures and implement policies to ensure that future generations enjoy the benefits of a clean and healthy living environment. Sustainable development is set as a global philosophy for future generations. In order of his achieving, at the state level, are implementing policies and measures focused on solving specific problems posed by the pollution of the environment, reduce pollution through air, water, slowing down of climate change etc. Today, it is also required from each company and each individual to give contribute to sustainable development. The same case is in Serbia.

Public corporations and individuals employed in them, have a greater responsibility and pressure that must behave as a good "host" and good "citizen" in terms of "good behavior" toward the environment.

A large number of environmental laws throughout the world, and the Republic of Serbia was adopted in order to send a message about the importance of movement to "green wave" around the world.

In some cases in the previous years, the issues of green marketing and the related environment are virtually ignored by corporations and individuals. Hazardous waste and other similar items are considered cost-growing economy. Times have changed and people now realize the consequences of waste products that damage the environment. Today, society recognizes that the preservation of clean air, water and land is more important than searching for cheaper products for consumers and higher profits for companies. Also, the day progresses and the individual consciousness, so that many people are willing to pay more for a product that is environmentally friendly, healthy, safe. Many companies are now interested to be characterized as a "green", so as many investors take account of environmental liability. Some corporations have had to pay to clean up its environmental history of "hostile" behavior. However, most firms have established a good reputation as an "environmentally friendly". To protect the environment, it must be defined in addition to the problem, the way how to resolve the issue. It is necessary to plan, monitor, report on investment in environmental protection in order to bring the ratio of investment in environmental effects and benefits that implies.



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2. Environmental Pollution

Environment, and the Ecology has many different definitions, and in symbiosis of all of them we can conclude that this term actually refers to an environment where they are, live and work all living beings, including man. As it has been pointed out by all living beings with their environment generate some interaction, but also living things affect each other. So they act on the environment (reaction), the environment act on them (action) and mutual (coactions).

In relation to the environment, certainly the biggest problem that appears is its pollution. Man with his own lifestyle and behavior, affects the environment, and not always positive. Technology development and changing lifestyles in the modern sense, leads to different production processes and products which as a result have environmental pollution. So, the man through the processes of production of different products leads to pollution of their environment. Very often the products themselves are sources of pollution. All this leads to unwanted changes of environmental factors, such as. climate change or changes in water quality, air, which leads to a change in the quality of life of living beings. Today, at the level of environmental pollution are talking about the issues that have global characteristics. So we can say that global problems of environmental pollution can be divided into problems related to pollution of the atmosphere, water, soil, biodiversity loss, waste and the risks that all human activity carries, such as risk from accidents, radiation, chemicals, genetic modified organisms ... But also through the problems that are the result of the increased volume of trade globally. There is almost universal agreement about the current state of the environment that can be characterized as an ecological crisis, environmental crisis, environmental crisis, etc. The causes that led to the appearance of this crisis are almost entirely attributed to a man

In the broadest terms, saying, two civilization processes led to the disturbance of the environment:

- Population growth on earth
- Economic development and those associated with the fast pace of industrialization

So, other than those described environmental pollutions, these processes have led to the exploitation of natural resources and disrupted the process in nature. Man in using these resources for their own purposes, both directly, so as caused by the increase in population in the country, so as through the production of such goods that require further use of energy, such as cars for example leads to their exhaustion. This raises the question whether it can be indefinitely, and whether those resources are unlimited. The answer to this question is unfortunately negative. There are resources that are renewable, such as forests for example, and those that cannot be renewed as oil or fossil fuel. So, moderation in consumption and utilization of natural recourses presents a major problem for mankind, but at the same time a great challenge.



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3. Sustainable Development

This rapid development of industrialization of humanity, has been retreated with its serious problems that may threaten the future existence of human life on earth. In the middle fifties with increasing concerns about environmental conditions and direction of solving the problems leads to their first observation and definition, and then how to solve them through appropriate systems of environment. In this process, ecological management gets its outlines as a system of environmental management. The concept that presents a general framework for environmental management and the main response to the environmental crisis is sustainable development. Sustainable development is described as development that satisfies the needs of present generations without compromising those opportunities for future generations.¹ So, sustainable development actually, is a general aim at the global level. It is clear that this aim cannot be achieved without consideration of what actually makes the right of future generations, the measures to be implemented on the way, and their determination and control through integration of policy and law environment in all sector policies.

Economic parameters have priority in the debate on sustainable development.² In other words, increased economic activity actually have for the consequence the exploitation of natural resources, with whom it becomes rare and very important for the economy in general. So, the biosphere actually is an environment in which the economic processes take place, as an important factor, so its protection must be included in the calculation of the economic process. It follows that it is necessary to establish the economic parameters to measure sustainability. All analysis made for individual countries show a direct link between economic parameters and environmental conditions.³ Philosophy of sustainable development and its promotion, as a result of the late eighties, actually represents a turn in the conception of environmental protection, through the basic idea of linking development policies and development in general with environmental problems. The issue of integration of environmental policy into sector policies is a key element in understanding sustainable development. Witnesses to this are reports on the environment which are prepared by the main international organizations and individual countries and through consideration of the environment by examining the situation in certain sectors such as energy, agriculture, industry, forestry, fishing, transport, tourism...

The modern concept of sustainable development is not determined only by the economic sizes, already includes the economic, social, cultural and ecological component. The development of ecological

¹ Rio Declaration on Environment and development, adopted at the UN conference on Environment and Development, Rio de Janeiro in 1992, principles 3rd

² Todić D, Environmental management in conditions of globalization, Megatrend University, Belgrade 2003, p. 121

³ Encouraging environmentally sustainable growth: experience in OECD countries, ECO/WKO (2001), OECD



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consciousness of humanity has been affected the progress in solving environmental problems, because of the human participation in taking the active and passive care for the environment. Since the sixties of the last century, in many countries in the world, in the industry emissions of harmful substances into air and water are reduced, and were identified clean warehouses with toxic materials.⁴ Also, with the adopting regulations, the use of unhealthy chemicals is restricted. The very concept of "sustainable development" is relatively new, but the ideas contained in it can be found in the past. When the sustainable development is taken for serious, as a result drastic demands for change in all spheres of life of every individual accrues. Changes are related to changes in our spending habits (which in itself is already hard enough), and the change of consciousness in the field of economics, politics and society. The term of sustainable development usually is related with environmental protection, planning of social development, environmental, economic and political issues. The concept of sustainable development presents a new development paradigm, a new strategy and philosophy of social development. Sustainable development also combines concern for the wild life on the planet Earth and the preservation of the capacity of natural systems (natural resources) to social and environmental challenges with who is faced every society, country and humanity as a whole. Challenges that come with the vulnerability of the environment in particular affect to actuality of sustainable development. Some of these challenges are: global warming, ozone layer depletion, "greenhouse effect", the disappearance of forests, conversion of arable land in the desert, the occurrence of acid rain, extinction of animal and plant species.

The fact is that today the issue of sustainable development, protection and preservation of the environment became the dominant issue on the world stage, with special emphasis on the application of the principle of prevention. Namely, if we consider environmental risk we need to know that it is a complex quantity that describes the product of probability of harmful events that affect the basic factors of pollution of the environment, safety and human health and the expected size of these events result in the one closed (rounded) system of the environment during the one time interval or during certain missions.

The concept of sustainable development was first mentioned 1982nd at the conference in Nairobi. General Assembly of the United Nations in 1983, has approved the Resolution on taking the initiative to establish the World Commission on Environment and Development, and issued the report "Our Common Future" in 1987, which pointed out the consequences of uncontrolled demographic and economic growth, and hence the need to define the concept of sustainable development.⁵

⁴ Petrović N, "Environmental Management", Newpress, Smederevo, 2007, p. 56

⁵ Petrović N, "Environmental Management", Newpress, Smederevo, 2007, p. 59



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At the second UN Conference on Environment and Development in Rio de Janeiro in 1992nd the following documents are approved:⁶

- Rio Declaration on Environment and Development;
- Convention on Climate Change;
- The Convention on Biological Diversity;
- Non-binding document: Principles of management, protection of the sustainable development of all types of forests;
- Agenda 21 (instruction for the implementation).

There are two categories of natural resources: renewable resources: geological resources (mineral resources: metal ores, non-metals and energy resources: coal, oil and gas) and renewable resources: wildlife, water, air, sunlight, wind and tidal energy.

Biodiversity is now under tremendous pressure of various intensities and various factors compromising. Many plant and animal species are endangered, threatened by extinction risk. Some are even completely lost. Biodiversity provides us with not only material wealth, but the spiritual health, the base of a healthy environment and sustainable development. Conservation and sustainable use of biodiversity should be a main concern of humankind, how at the global, so as and regional and local level. The main cause's threats of biodiversity are a global changes (climate, ozone depletion, and the negative effects of greenhouse gases), air pollution, water and land.⁷

There is no single and generally accepted definition of sustainable development. However, there is agreement on the need to introduce this concept and awareness of the reasons for its creation. The most commonly quoted definition of sustainable development is the report "Our Common Future" that has been composed on the call made by the United Nations World Commission on Environment and Development (the Brundtland Commission) in 1987th. The term was used by the Brundtland Commission which coined what has become the most often-quoted definition of sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs."⁸ This is an elegant and easily understood definition that explains the concept of sustainable development in general, starting from the first term, and without going into detailed explanations. According to another definition, sustainable development implies a balance between resource consumption and capacity of natural systems to meet the needs of future generations.

A comprehensive definition of sustainable development reads: Sustainable development is an integral economic, technological, social and cultural development, in line with the needs of protection and

⁶ Petrović N, "Environmental Management", Newpress, Smederevo, 2007, p. 58

⁷ Kosović, M. S. (2010). Sustainable development of water resources and biodiversity. *Ecologica*, 17(59), 415-418.

⁸ World Commission on Environment and Development (WCED), *Our Common Future*, Oxford 1987, p. 43



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improvement of environment, which allows current and future generations to meet their needs and to improve quality of life.

However, the precise meaning of the concept of sustainable development is the subject of extensive debate. There are authors who instead of the term "sustainable development", rather talk about the term "sustainability" and the term "sustainable development" reserve for specific development activities.

In a language sense the term "sustainable development", is some wise inappropriate and inaccurate, or at least, we can make a question what it means. Thus, for example, it raises the question of how can "maintain" something that is subject to constant change - because the "development" implies change, i.e. growth, stagnation or decline. The essence of the concept of sustainable development is based on the principle of intergenerational justice, i.e. Intergenerational equity. This principle refers to the inheritance of the same environmental condition in-between two generation. Disregard of this principle is the damage of the environment of one generation which is transferred to the future generations.⁹

The concept of sustainable development has multiple components. Francesco di Castri, a biologist and director of research at the French National Center for Scientific Research, has defined four components of sustainable development: the economy (industry), society, culture and environment.

4. Green Marketing

When it comes to new marketing concepts, efforts are directed to carefully selected customers, whether it comes to individual or groups, to whom the products or services are adapted, but with interaction of all other participants, create and delivers new, increased value.¹⁰

Green marketing is the marketing of products that are represented as a safe for human health and safety, as well as its environment, which also should contribute to sustainable development. Green marketing refers to the efforts of organizations to produce, pack, promote and sell of products that are appropriate and acceptable for the individual and the environment. Green marketing includes a wide range of activities including product modification, production process, packaging, promotion and sales, with the aim of delivering healthy, environmental, safe, nutritionally valuable products to the consumers.

First of all, activities in terms of green marketing, anyhow, we must locate and identify the target green consumers, then assess how is the group informed and what kind of additional training is needed to extend or reinforce it. When we observe the demographics of buyers of environmentally acceptable, organic

⁹ Petrović N, "Environmental Management", Newpress, Smederevo, 2007, p. 59

¹⁰ Radnović B, Ilić M, "Customer relationship management CRM software solutions and market-oriented enterprises", Proceedings of E-commerce 2008, Palić, 2008.



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products, women are more interested in the environment than men, more often are buying organic produce and more engaged in sorting waste for recycling. However, men and women are equally interested in their health, and equal representation in the activities of preserving the environment. Also, people with higher incomes and education levels, and therefore greater access to information, often pay more attention to organic products and the environment. Psychological indicators of consumers tell us that people with conservative values do not want to complicate life with the changes or do not want to be part of something that does not comply with basic standards and therefore they not open to changes in standards and purchase green products. Observing the behavior of customers who use green products to a large extent, showed that they largely influenced by the opinions of others, states and environmental groups, they also have a strong identity and high degree of concern for themselves and for their environment. Unlike them, customers who buy less green products are of the opinion that it is hard to find these products on the market. The group of customers under the popular name of „green activists“ is definitely the target group, because they have the highest level of education, work on high-skilled jobs (middle and senior management, intellectuals, scientists and artists) and have the highest incomes. It should be taken that they also often show great skepticism about the promotional and marketing claims. Green marketing, environmental marketing and sustainable marketing are different in terms of terminology, but substantially with similar meaning. They should not be understood only as a possible profit potential, where the attribute verdancy or the environmental suitability is adding to product, and marketing activities use them for commercial benefit, but should kept in mind the approach that is more complex, and in the long term business more efficient, including: fundamental changes in the company by defining the basic strategy for the company, marketing strategy, organizational structure and most importantly promotion of eco-management.¹¹

With the growth rate of economic development the most developed part of the world community, the issue of protection of the environment is becoming increasingly important. So, the concept of deepening marketing business with the concept of green marketing and philanthropic marketing concept arise, causing the emergence of social marketing. In addition, green marketing is the primary segment of social marketing, because it covers the protection and preservation of the values necessary for survival, existence and development of man as a human being. This reflects the philosophy of practical support for the implementation of sustainable development of humanity.¹²

To produce significantly greener products, new and cleaner products, equipment and technology must be developed. Today we are faced with the growth of innovative solutions "clean technology". Successful development of new green products requires high levels of communication and integration, good information, support from top management and benchmarking. Set of controllable tactical marketing tools

¹¹ Ilić, M.M.. "SWOT analysis and eco-marketing." *Marketing* 28.1 (1997): 41-46.

¹² Pecić, L. "Environmental protection and green marketing." *Quality* 20.5-6 (2010): 79-81.



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such as product, price, place, promotion, which one company combines to respond to the demands of the green market is of great importance for the management of companies.¹³

If we look at the company on the top of the green trend we will recognize their potential for business and profits, as well as their contribution to environmental protection. These successful companies do not sell only the products to its customers and gets profits from that, but rather focuses its own corporate commitments to care for the environment. Unlike conventional producers, most successful green companies direct their customers, or in advance know what have to be done and how to offer to the customers an environmentally acceptable product. Such companies are willing to cooperate openly with customers, government and non-governmental organizations and institutions. They simply demonstrate to its employees, customers, suppliers and others that they want to worry about. Greenest companies are prepared to deal with care of the natural environment. Companies that patiently offer to the greenest consumers truly healthy, safe, nutritionally valuable products and innovative solutions and truly care about the environment, can expect to be most successful in the future.¹⁴

5. Experiences from the Republic of Serbia

For successful economic development of Serbia, there are necessary changes at the same time, in many areas. The basis of competitiveness of the Serbian economy has to be changed. The above stated require changes, how it refers to marketing strategies of organizations, it refers to the overall business environment in Serbia. To enhance the marketing activities of companies from the Republic of Serbia it is necessary among other things: acceptance and application of the science of marketing in organizations, rather than relying on intuition in decision-making, holistic development of internal marketing, development of marketing relationships with partners such as marketing management and customer relations. Today, in the Republic of Serbia marketing managers that are planning the implementation of modern marketing must know that the modern marketing faces many challenges that affect on business.

Important changes in the modern marketing organization in terms of globalization are:

1. From transactional to relational marketing,
2. From the traditional system to creating a unique value with customers
3. From profit-orientated and sustainable marketing (increasing emphasis is given to green marketing).

Proactive companies today can achieve a competitive advantage by position and differentiation on the basis of:

¹³ Čajka, Z.. ""Green marketing - a concept of green product." *Ecologica* 12.44 (2005): 43-47.

¹⁴ Čajka, Z.. " Green marketing - a challenge for the future. " *Business Policy* 33.1 (2004): 55-56.



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1. Relational marketing,
2. Together to create unique value with customers and other business partners and
3. Sustainable development (increasing emphasis on the production and distribution of healthy, safe, nutritionally valuable products).¹⁵

Modern market-oriented companies in the Republic of Serbia are increasingly trying to align their operations with sustainable development Strategy of Republic of Serbia. Sustainable Development Strategy of the Republic of Serbia bases its decision in accordance with the requirements of European Integration: A Strategy for Sustainable Development of the European Union, adopted 2001th and revised the 2006th with The Lisbon Strategy and the European Union. Sustainable Development Strategy of Serbia is in line with the United Nations Millennium Development Goals and National Development Goals in Serbia, which the Government of the Republic of Serbia adopted during the 2006th.

Sustainable Development Strategy of the Republic of Serbia is in compliance with existing sector strategies:

1. National Employment Strategy;
2. Strategy for development of energy Republic of Serbia by 2015;
3. Strategy for development of agriculture in Serbia;
4. Strategy for tourism development;
5. Strategy for Encouraging and Developing Foreign Investment;
6. National strategies for solving problems of refugees, displaced and internally displaced people;
7. Strategy for public administration reform;
8. Strategy for development of social welfare;
9. National strategies to fight corruption;
10. Strategy for local sustainable development;
11. Strategy for Small and Medium Enterprises;
12. Strategy for reform the health care system - better health for all in the third millennium;
13. Strategy for forestry development;
14. Waterpower engineering basis Serbia 2002 - 2012;
15. National Waste Management Strategy;
16. National Plan for children action;
17. National strategies to combat HIV / AIDS;
18. Strategy for development of vocational education;
19. Strategy for development of adult education;

¹⁵ Rakić, B., Rakić M, "The application of marketing in organizations and the Serbian economy." Economic perspectives 12.3 (2007): 481-494.



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20. Strategy for Regional Development and Action Plan.

Of course, today when it is mentioned sustainable development in Serbia increasingly more in business theory and practice of modern market-oriented companies also is mentioning the green marketing, and the necessity of its implementation in the overall business practices of companies from the Republic of Serbia, especially those that already operate or want to do business in the highly demanding European Union market.

It may be noted that the concept of green products, the related companies and green marketing in the Republic of Serbia is in its infancy. It is important to develop a sense of environmental responsibility, both within the company and for each employee and clearly communicated to customers. Does this mean the beginning of placing recycling bins on each floor of a company or an ambitious building of green office building, each company can decide itself in accordance with their capabilities, but the employees within the company must comply with environmental vision, goals and strategies of management? It is observed that in recent times and there is a change in values and allocation of new consumer segments where the quality is more important than quantity, in the short term is not important as long term and not thinking it through more "me" but by "we." In line with this new vision of modern market-oriented companies will have to follow this modern thinking of the consumer society.

Since the production of green products and the introduction of green standards in the companies is financially demanding, it is important to find a way to these costs, at least initially, be reduced to a minimum, as it would not be too much reflected in the price of goods apropos to the domicile of the company Republic of Serbia, who want to introduce green concepts can be internally and externally be competitive on the market. It is also necessary to educate consumers and the target segment of what is necessary for the development of green products and all of its benefits to green price compared to the green quality were relevant and viable in the eyes of consumers. It is unrealistic to expect consumers to develop and present cost of materials for green products, because the green concept is still in its infancy, and the benefits continue, at least so it seems, that they are not clearly conceptualized and explained.

Clearly, the positioning of each, including the green products, is necessary to justify the price, but also positioning of the company itself as market leader. From this it naturally follows, and excellent positioning in the value system of the customer. What makes a product so specific and whether there is targeted group of customers? What makes it practical and affordable? In the positioning should not rely on the environmental benefits, but it should be qualified as value-added products. In short, the only reference to a person's environmental awareness will not sell the product. They are still the primary criteria for physical accessibility in the purchase of products, price and comfort, while ecology is still secondary, to the most customers, even



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though from day to day awareness of environmental, healthy, safe, nutritionally valuable, products and their significance for consumers in the Republic Serbia is growing. Also, it is important to emphasize that this large contribution from many successful global companies operating in the Serbian market, such as LaFarge cement factory - Beočin, Carlsberg Brewery - Celarevo Sartid steel - Smederevo .

Now that we are generally at the beginning of the placement of green products need in the Republic of Serbia, we need to educate consumers in that direction and implement knowledge of ecological, healthy, safe, nutritionally valuable products, in the framework of contemporary marketing campaigns. It is necessary to emphasize the practical benefits to the consumer promotional messages on the ecological product. A large number of green products have become part of the massive use because of its practicality, such as for example energy-efficient machines and organic food. They should not only emphasize the environmental benefits, but above all a practical value for users of green products.

6. Conclusion

Today, in a time of global economic crisis, the issue of sustainable development is even more topical. There is a per se and the additional question, how to overcome the crisis period, but also a way to preserve scarce natural resources. This is certainly not easy. However, in recent times, to the market oriented companies are imposing a relatively new concept - the concept of green marketing. It is a concept that requires a green company that manufactures, distributes and sells green products. Being green means being capable of at every stage of the process to implement green management philosophy, which includes green product, green pricing, green and green channels of distribution and promotion.

The goal is to offer consumers a healthy, safe, environmentally friendly, nutritionally valuable product and at the same time to achieve sustainable development. Achieving sustainable development by implementing the concept of green marketing will require major changes in most companies from the point of planning a green product, through its production, forming a green pricing, distribution channels, green and green promotions. Is demanding, but it certainly shows the cost-effective, in every sense. This is supported by the fact that only the development of environmental industries and green companies withstand global economic crisis.

Republic of Serbia is becoming aware of environmental issues; it is also one of the essential prerequisites for entry into the European Union. However, it seems that there is still green with a marketing company, and perhaps even more consumers on the other hand, do not attach enough importance. But what is encouraging is that in the Republic of Serbia continuously make progress in raising awareness of management of successful companies and consumers about the necessary synergy of green marketing and sustainable development and the necessary environmental, healthy, safe, environmentally, nutritionally valuable products.



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7. References

- [1] Čajka, Z., "Green marketing - a challenge for the future." *Business Policy* 33.1 (2004): 55-56.
- [2] Čajka, Z.. "Green marketing - a concept of green product." *Ecologica* 12:44 (2005): 43-47.
- [3] Encouraging environmentally sustainable growth: experience in OECD countries, ECO / WKO (2001), OECD, 2001
- [4] Ilić, M., Radnović B, .. "SWOT analysis and eco-marketing." *Marketing* 28.1 (1997): 41-46.
- [5] Ilić, M.M.. "SWOT analysis and eco-marketing." *Marketing* 28.1 (1997): 41-46.
- [6] Kosović, M. S. (2010). Sustainable development of water resources and biodiversity. *Ecologica*, 17 (59), 415-418.
- [7] Mihajlović, D. & Živković, S. (2010). Global ecological and economic problems in the Third Millennium. *Ecologica*, 17 (59), 437-440.
- [8] Pecić, L.. "Environmental protection and green marketing." *Quality* 20.5-6 (2010): 79-81.
- [9] Petrović N, "Environmental Management", Newpress, Smederevo, 2007.
- [10] Radnović B, Ilić M, "Customer relationship management CRM software solutions and market-oriented enterprises", *Proceedings of E-commerce 2008, Palić, 2008*.
- [11] Radnović B., Ilić M, Živković Z, Corporate Social Responsibility and the nonprofit sector - and unethical marketing strategy or genuine concern, 3rd International Conference of Economic Sciences, Kaposvar 2011th
- [12] Rakić, B., Rakić M, "The application of marketing in organizations and the Serbian economy." *Economic perspectives* 12.3 (2007): 481-494.
- [13] Rio Declaration on Environment and development, adopted at the UN conference on Environment and Development, Rio de Janeiro in 1992.
- [14] Todić D, Environmental management in conditions of globalization, Megatrend University, Belgrade 2003.
- [15] World Commission on Environment and Development (WCED), *Our Common Future*, Oxford 1987



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